INFORMATION TO OFFERORS OR QUOTERS
SECTION A - COVER SHEET

Form Approved
OMB No. 9000-0002
Expires Oct 31, 2004

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS. RETURN COMPLETED FORM TO THE ADDRESS IN BLOCK 4 BELOW.

1. SOLICITATION NUMBER	2. *(X one)*	3. DATE/TIME RESPONSE DUE
FA8818-04-R-0010	[ ] a. INVITATION FOR BID (IFB) [X] b. REQUEST FOR PROPOSAL (RFP) [ ] c. REQUEST FOR QUOTATION (RFQ)	14 JUL 2004 4:00 MDT

INSTRUCTIONS

NOTE: The provision entitled "Required Central Contractor Registration" applies to most solicitations

1. If you are not submitting a response, complete the information in Blocks 9 through 11 and return to the issuing office in Block 4 unless a different return address is indicated in Block 7.

2. Offerors or quoters must include full, accurate, and complete information in their responses as required by this solicitation (including attachments). "Fill-ins" are provided on Standard Form 18, Standard Form 33, and other solicitation documents. Examine the entire solicitation carefully. The penalty for making false statements is prescribed in 18 U.S.C. 1001.

3. Offerors or quoters must plainly mark their responses with the Solicitation Number and the date and local time for bid opening or receipt of proposals that is in the solicitation document.

4. Information regarding the timeliness of response is addressed in the provision of this solicitation entitled either "Late Submissions, Modifications, and Withdrawal of Bids" or "Instructions to Offerors - Competitive Acquisition".

4. ISSUING OFFICE *(Complete mailing address, including Zip Code)*	5. ITEMS TO BE PURCHASED *(Brief description)*
SMC DET 12/PK CONTRACTING DIVISION 3548 ABERDEEN AVE SE KIRTLAND AFB, NM 87117-5778	Responsive Small Spacelift

6. PROCUREMENT INFORMATION *(X and complete as applicable)*

X	a. THIS PROCUREMENT IS UNRESTRICTED
	b. THIS PROCUREMENT IS _____ % SET-ASIDE FOR SMALL BUSINESS. THE APPLICABLE NAICS CODE IS: _____
	c. THIS PROCUREMENT IS _____ % SET-ASIDE FOR HUB ZONE CONCERNS. THE APPLICABLE NAICS CODE IS: _____
	d. THIS PROCUREMENT IS RESTRICTED TO FIRMS ELIGIBLE UNDER SECTION 8(a) OF THE SMALL BUSINESS ACT.

7. ADDITIONAL INFORMATION
Please note that Past Performance Volume is due to be received at the address shown above, not later than sixteen (16) days following the date of release of the Request For Proposal (RFP)

8. POINT OF CONTACT FOR INFORMATION

a. NAME *(Last, First, Middle Initial)*	b. ADDRESS *(Include Zip Code)*
STEVEN L. HOWARD	See Block 4
c. TELEPHONE NUMBER *(Include Area Code and Extension)* 505-753-6690 X	**d. E-MAIL ADDRESS** steve.howard@kirtland.af.mil

9. REASONS FOR NO RESPONSE *(X all that apply)*

[ ]	a. CANNOT COMPLY WITH SPECIFICATIONS	[ ]	d. DO NOT REGULARLY MANUFACTURE OR SELL THE TYPE OF ITEMS INVOLVED
[ ]	b. UNABLE TO IDENTIFY THE ITEM(S)	[ ]	e. OTHER *(Specify)*
[ ]	c. CANNOT MEET DELIVERY REQUIREMENT		

10. MAILING LIST INFORMATION *(X one)*

WE [ ] DO [ ] DO NOT DESIRE TO BE RETAINED ON THE MAILING LIST FOR FUTURE PROCUREMENT OF THE TYPE INVOLVED.

11a. COMPANY NAME	b. ADDRESS *(Include Zip Code)*

c. ACTION OFFICER

(1) TYPED OR PRINTED NAME *(Last, First, Middle Initial)*	(2) TITLE

(3) SIGNATURE	(4) DATE SIGNED *(YYYYMMDD)*

FOLD

FOLD

FROM

AFFIX
STAMP
HERE

SOLICITATION NUMBER	
FA8818-04-R-0010	
DATE *(YYYYMMDD)*	**LOCAL TIME**
14 JUL 2004	4:00 MDT

SOLICITATION, OFFER AND AWARD	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING	PAGE OF PAGES
		DO-A2	1 | 29

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
	FA8818-04-R-0010	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)		

7. ISSUED BY DET 12/PKN CODE FA8818	8. ADDRESS OFFER TO *(If other than Item 7)*
SMC DET 12/PK CONTRACTING DIVISION 3548 ABERDEEN AVE SE KIRTLAND AFB, NM 87117-5778 STEVEN L. HOWARD 505-753-6690 STEVE.HOWARD@KIRTLAND.AF.MIL	

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE *(Include area code)* *(NO COLLECT CALLS)*	C. E-MAIL ADDRESS
	See Block 7	See Block 7	See Block 7

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OFFER (*Must be fully completed by offeror)*

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within ____**120**____ calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date of receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %

14. ACKNOWLEDGEMENTS OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:*	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

15B. TELEPHONE NO. *(Include area code)*	15C. CHECK IF REMITTANCE ADDRESS ☐ IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE	18. OFFER DATE

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: ☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )	23. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*	ITEM

24. ADMINISTERED BY *(If other than Item 7)* CODE	25. PAYMENT WILL BE MADE BY CODE

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	28. AWARD DATE

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

ITEM	SUPPLIES OR SERVICES	Qty Purch Unit	Unit Price Total Item Amount
0001		0	_____ _____

Noun: LAUNCH VEHICLE
ACRN: 9
NSN: N - Not Applicable
DD1423 is Exhibit:
Contract type: L - FIXED PRICE INCENTIVE FIRM
Inspection: DESTINATION
Acceptance: DESTINATION
FOB: DESTINATION
Descriptive Data:
The contractor shall furnish the specified space launch vehicle to accomplish the Technical Requirements Document provided with individual task orders that may be issued against this contract line item. The ordering period is sixty (60) months from date of contract award. The Unit Price and Total Item Amount for this CLIN are unpriced. Prices are to be associated with individual task orders that may be issued under this CLIN.

0002		1 Lot	_____ _____

Noun: LAUNCH SERVICES
ACRN: 9
NSN: N - Not Applicable
Contract type: L - FIXED PRICE INCENTIVE FIRM
Inspection: DESTINATION
Acceptance: DESTINATION
FOB: DESTINATION
Descriptive Data:
The contractor shall furnish the necessary qualified personnel, services, and enhancements to accomplish the Mission Requirements Document provided with individual task orders that may be issued against this contract line item. The ordering period is sixty (60) months from date of contract award. The Unit Price and Total Item Amount for this CLIN are unpriced. Prices are to be associated with individual task orders that may be issued under this CLIN.

0003		1 Lot	_____ _____

Noun: DATA--EXHIBIT A -- NOT SEPARATLY PRICED
NSN: N - Not Applicable
Contract type: L - FIXED PRICE INCENTIVE FIRM
Inspection: DESTINATION
Acceptance: DESTINATION
FOB: DESTINATION
Descriptive Data:
The contractor shall provide data in accordance with the Contract Data Requirements List, DD Form 1423, designated as Exhibit A, Section J, thereof. Data Requirements are not separately priced (NSP).

ITEM	SUPPLIES OR SERVICES	Qty Purch Unit	Unit Price Total Item Amount
0004		1 Lot	_____ _____

Noun: SPECIAL STUDIES
ACRN: 9
NSN: N - Not Applicable
DD1423 is Exhibit:
Contract type: U - COST PLUS FIXED FEE
Inspection: DESTINATION
Acceptance: DESTINATION
FOB: DESTINATION
Descriptive Data:
The contractor shall furnish the necessary qualified personnel and services to accomplish the study specific Technical Requirements Document. The ordering period for this CLIN is sixty (60) months from date of contract award. The Unit Price and Total Item Amount for this CLIN are unpriced. Prices are to be associated with individual task orders that may be issued under this CLIN.

0005		1 Lot	_____ _____

Noun: MISSION SUCCESS PAYMENT
ACRN: 9
NSN: N - Not Applicable
Contract type: J - FIRM FIXED PRICE
Inspection: DESTINATION
Acceptance: DESTINATION
FOB: DESTINATION
Descriptive Data:
The Mission Success Payment is a performance incentive included in the Responsive Small Spacelift contract and detailed in contract clause Det 12-H009, "Mission Success Determination Process." The Government shall unilaterally determine the mission failure or success in accordance with the clause and the specific criteria for each mission. If the Government determines a mission success payment is due to the contractor, funds will be obligated against a corresponding CLIN/SubCLIN in each delivery order.

NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

A. AIR FORCE MATERIEL COMMAND FEDERAL ACQUISITION REGULATION SUPPLEMENT CONTRACT CLAUSES IN FULL TEXT

5352.216-9001 PAYMENT OF FEE (AFMC) (CPFF) (JUL 1997)

The estimated cost and fee for this contract are shown below. The applicable fixed fee or target fee set forth below may be increased or decreased only by negotiation and modification of the contract for added or deleted work. As determined by the contracting officer, it shall be paid as it accrues, in regular installments based upon the percentage of completion of work (or the expiration of the agreed-upon period(s) for term contracts).

Estimated Cost: TBD for each task order.
Fixed Fee: TBD for each task order.

Applicable to following Line Items: _____ (Insert Line Items)

B. OTHER CONTRACT CLAUSES IN FULL TEXT

B030 CONTRACT TYPE: FIXED- PRICE- INCENTIVE -- FIRM TARGET (FEB 1997)

The target cost, target profit, and target price contemplated by the contract clause entitled, "Incentive Price Revision-- Firm Target," are set forth below. The contract line items subject to price revision, ceiling price, and the profit adjustment formula are set forth in 52.216-16.

Target Cost TBD for each task order
Target Profit TBD for each task order
Target Price TBD for each task order
Ceiling Price TBD for each task order

Applicable to following Line Items: 0001

B054 IMPLEMENTATION OF LIMITATION OF FUNDS (FEB 2003)

(a) The sum allotted to this contract and available for payment of costs under (see each task order for applicable CLINS) through (see each task order for applicable date) in accordance with the clause in Section I entitled "Limitation of Funds" is (see each task order for applicable amount).

(b) In addition to the amount allotted under the "Limitation of Funds" clause, the additional amount of (see each task order for applicable amount) is obligated for payment of fee for work completed under CLINs (see each task order for applicable CLINS).

B058 PAYMENT OF FEE (CPFF) (FEB 2003) (TAILORED)

The estimated cost and fee for this contract are shown below. The applicable fixed fee set forth below may be increased or decreased only by negotiation and modification of the contract for added or deleted work. As determined by the contracting officer, it shall be paid as it accrues, in regular installments based upon the percentage of completion of work (or the expiration of the agreed-upon period(s) for term contracts).

Estimated Cost TBD for each task order. (insert estimated cost)
Fee TBD for each task order. (insert target or fixed fee)
(Applicable to CLIN 0004 only)

NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

OTHER CONTRACT CLAUSES IN FULL TEXT

C001 WORK DESCRIPTION/SPECIFICATION (MAY 1997)

Work called for by the contract line items specified in SECTION B shall be performed in accordance with the following:

CONTRACT LINE ITEM NUMBERS (CLINs) DESCRIPTION/SPECIFICATIONS
All. The contractor shall provide supplies/services in accordance with Attachnment 2, Technical Requirements Documents (TRDs), of this contract and the Mission Requirements Document (MRD) provided with each task order.

C003 INCORPORATED DOCUMENTS/REQUIREMENTS (APR 1998)

Exhibit A, Contracts Data Requirements List (DD Form 1423) for Responsive Small Spacelift (RSS) dated 4 June 2004
Attachment 1, STATEMENT OF OBJECTIVES (SOO) RSS dated 4 June 2004
Attachment 2, RESPONSIVE SMALL SPACELIFT TECHNICAL REQUIREMENTS DOCUMENT (TRD), Ground Launchdated 4 June 2004
Attachment 3, RESPONSIVE SMALL SPACELIFT TECHNICAL REQUIREMENTS DOCUMENT (TRD), Air Launchdated 15 June 2004
Attachment 4, Mission Requirements Document, Ground Launch, Dated 5 June 2004
Attachment 5, Mission Requirements Document, Air Launch, Dated 15 June 2004
Attachment 6, Contractor Statement of Work (CSOW), to be provided by offeror, Dated (TBD)
Attachment 7, Contractor Integrated Master Plan (IMP), Dated (TBD)
Attachment 8, Sample WBS
Attachment 9, Model Task Order

NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

OTHER CONTRACT CLAUSES IN FULL TEXT

D001 PRESERVATION, PACKAGING, PACKING AND MARKING REQUIREMENTS (FEB 1997)

Preservation, packaging, packing and marking shall be set forth in the individual order.

DET 12-D001 PACKAGING AND MARKING OF HAZARDOUS MATERIAL (AUG 2003)

Packaging and marking will be in accordance with Bureau of Explosives 49 CFR - Parts 106, 107, 110, 130, 171-180 and 397 entitled "Hazardous Material Regulations of the Department of Transportation," issued: 15 April 1994, effective 15 May 1994.

I. NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

A. FEDERAL ACQUISITION REGULATION CONTRACT CLAUSES

52.246-02	INSPECTION OF SUPPLIES -- FIXED-PRICE (AUG 1996) - ALTERNATE I (JUL 1985)
52.246-04	INSPECTION OF SERVICES -- FIXED-PRICE (AUG 1996)
52.246-05	INSPECTION OF SERVICES -- COST-REIMBURSEMENT (APR 1984)
52.246-16	RESPONSIBILITY FOR SUPPLIES (APR 1984)

B. DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT CONTRACT CLAUSES

252.246-7000 MATERIAL INSPECTION AND RECEIVING REPORT (MAR 2003)

II. NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

OTHER CONTRACT CLAUSES IN FULL TEXT

E001 REQUIREMENTS FOR DATA ACCEPTANCE (FINAL DD FORM 250) (MAY 1997) (TAILORED)

The Contractor shall prepare and submit a final DD Form 250 at completion of each delivery order accounting for all completed Exhibit Line/Subline Items which called for submission of the data by letter of transmittal. The DD Form 250 shall include a list and an account of all data submitted by letter of transmittal and approved by the Government during the reporting period.

E006 RECEIVING REPORT (DD FORM 250) MAILING ADDRESS (APR 1998) (TAILORED)

(a) Submit original DD Form(s) 250 for all items deliverable under this contract (e.g. hardware, software, exhibit line items, status reports, services, etc.) to the following address:

SMC Det 12/PKN
Attn: Mr. Mel Pearson
3548 Aberdeen Ave. SE
Kirtland AFB NM 87117-5778
(505)843-3503

(b) In addition, a copy of the DD Form 250 shall accompany each shipment for all deliverable items. Shipment addresses are specified in Section F of the schedule and/or on the Contract Data Requirements List.

(c) PROCESSING STATUS. Any inquiry as to the processing status of a DD Form 250 should be made to the following office:

Same address as in para. (a) above

E007 INSPECTION AND ACCEPTANCE AUTHORITY (APR 1998) (TAILORED)

Inspection and acceptance for all Contract and Exhibit Lines or Subline Items shall be accomplished by the Program Manager, Space and Missiles Center (SMC) Det 12/RPS, 3548 Aberdeen Ave. SE., Kirtland AFB, NM 87117.

ITEM	SUPPLIES SCHEDULE DATA	QTY	SHIP TO	MARK FOR	TRANS PRI	DATE
0002		1	U			ASREQ
	Noun:	LAUNCH SERVICES				
	ACRN:	9				
0003		1	U	FA8818		ASREQ
	Noun:	DATA--EXHIBIT A -- NOT SEPARATLY PRICED				
0004		1	U	FA8818		ASREQ
	Noun:	SPECIAL STUDIES				
	ACRN:	9				
0005		1	U			ASREQ
	Noun:	MISSION SUCCESS PAYMENT				
	ACRN:	9				

I. NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

FEDERAL ACQUISITION REGULATION CONTRACT CLAUSES

52.242-15	STOP-WORK ORDER (AUG 1989)
52.242-15	STOP-WORK ORDER (AUG 1989) - ALTERNATE I (APR 1984)
52.242-17	GOVERNMENT DELAY OF WORK (APR 1984)
52.247-29	F.O.B. ORIGIN (JUN 1988)
52.247-34	F.O.B. DESTINATION (NOV 1991)
52.247-55	F.O.B. POINT FOR DELIVERY OF GOVERNMENT-FURNISHED PROPERTY (JUN 2003)

II. NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

OTHER CONTRACT CLAUSES IN FULL TEXT

F002 PERIOD OF PERFORMANCE (FEB 1997) (TAILORED)

Period of performance for the basic ID/IQ contract shall be sixty (60) months from date of contract award. The period of performance for task orders under this contract shall be stated in the individual task orders.

F003 CONTRACT DELIVERIES (FEB 1997) (TAILORED)

The following terms, if used within this contract in conjunction with contract delivery requirements (including data deliveries), are hereby defined as follows:

(a) "MAC" and "MARO" mean "months after the effective date for award of the contractual action (as shown in block 3, Section A, SF 26)".

(b) "WARO" means "weeks after the effective date for award of the contractual action".

(c) "DARO" means "days after the effective date for award of the contractual action".

(d) "ASREQ" means "as required". Detailed delivery requirements are then specified elsewhere in Section F.

NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

OTHER CONTRACT CLAUSES IN FULL TEXT

DET 12-G001 INVOICE AND PAYMENT (FIXED PRICE) (SEP 2003)

The following sentence applies to task orders issued under CLINs 0001 and 0002: When invoicing for payment, the contractor shall comply with the DET 12--H003 PERFORMANCE BASED PAYMENTS in Section H.

Payment for CLIN 0004 (Special Studies) will be made after completion of the study, acceptance of the final report, and Government's signature(s) on the DD Form 250.

For all CLINS: The contractor shall submit an original DD Form 250 plus four copies to the following address for acceptance and signature. (The contractor shall stamp the original DD Form 250 as "ORIGINAL INVOICE" and the copies as "INVOICE COPY".

Det 12/Space & Missiles Center/PKN
3548 Aberdeen Ave. SE\Kirtland AFB NM 87117

Det 12 SMC will forward the signed DD 250's to DFAS for payment.

G001 ACCOUNTING AND APPROPRIATION DATA (FEB 1997)

Accounting and appropriation data will be set forth on individual orders issued hereunder.

G006 INVOICE AND PAYMENT - COST REIMBURSEMENT (FEB 1997) (TAILORED)

Payment for all invoices/vouchers, to include progress payments, under this task order should be made in the order and amounts shown in the informational subline(s) in Section B, of the contract and recapped below. Exhaust the funds in each ACRN before using funds from the next listed ACRN.

G015 IMPLEMENTATION OF TAXPAYER IDENTIFICATION NUMBER (APR 1998)

In accordance with FAR 52.204-03, Taxpayer Identification Number is TBD .

G017 IMPLEMENTATION OF PATENT RIGHTS CLAUSE (IDIQ) (SEP 1999)

All documents and information required by the patent rights and/or patent reporting clauses set forth in Section I of this contract shall be submitted FOR EACH ORDER to the Administrative Contracting Officer and to 377th ABW/JAN
2251 Maxwell Ave. SE
Kirtland AFB NM 87117. The 377th ABW/JAN patent administrator can be reached at (505)846-1542. This notice also constitutes a request (see FAR 52.227-12(f)(10) or DFARS 252.227-7039(c), as applicable) for submission of a copy of the patent application, when filed, along with the patent application serial number, filing date, subsequent U.S. patent number and issue date, as received.

G018 CONTRACT HOLIDAYS (FEB 2003)

(a) The prices/costs in Section B of the contract include holiday observances; accordingly, the Government will not be billed for such holidays, except when services are required by the Government and are actually performed on a holiday. Holidays in addition to those reflected in this contract, which are designated by the

Government, will be billable provided the assigned Contractor employee was available for performance and was precluded from such performance.

(b) The following days are contract holidays: New Year's Day, Martin Luther King Jr's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Christmas Day

NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

OTHER CONTRACT CLAUSES IN FULL TEXT

DET 12-H002 CONTRACTING OFFICER AUTHORIZATION (AUG 2003)

The Contracting Officer shall be the only individual authorized to direct and/or redirect the effort or in any way amend any of the terms of this contract, other than those instances specifically delegated to an Administrative Contracting Officer or a Terminating Contracting Officer by a contract clause in this contract or in writing by the Procuring Contracting Officer (PCO). For purposes of this contract, "the contracting officer" is the individual located at the issuing office, and may be abbreviated as "CO" or "PCO". Any changes made by the Contractor WITHOUT CO authority will be made at the Contractor's own expense. The Contracting Officer may appoint a Contracting Officer's Technical Representative (COTR). Such an appointment must be made in writing, and the contractor shall be notified of the delegated authorities.

DET 12-H003 PERFORMANCE BASED PAYMENTS (JAN 2004)

PERFORMANCE-BASED PAYMENTS:

In accordance with FAR 52.232-32, orders issued under this contract will be paid using performance-based payments (PBP) for CLIN0001. 90% of the task order price will be paid through performance-based payments applicable to the task order. The remaining 10% will be paid upon final completion of all contractual requirements. The following identifies the events which will trigger a finance payment, the amount of payment and a description of what constitutes successful performance of the event. Contractor shall insert amounts and events; suggested events are as follows: (applicable to CLINs 0001 only)

Payment Event	Amount of Payment (as a % of contract price)	Event Type *	Description of Event
Approval of Mission Design Review-1 A004 Data Package	10%	S	Submission of CDRL to LV ICD
Approval of MDR-2 Data Package A004	10%	S	Submission of CDRL
Approval of MRD-3 (CDR) Data Package A004	20%	C	Submission of CDRL
Pre-ship Review Approval to Ship	10%	C	Government/Contractor
Mission Readiness Review Launch	10%	C	Government Approval to
Launch	25%	C	
Post-Launch Review (final Payment)	5%	C	CDRL 018 Submittal

* PBP events can be of two types: severable (i.e., stand-alone) or cumulative (i.e., dependant). Severable events do not depend for their successful accomplishment upon the prior or concurrent completion of any other event or action.

Cumulative events require the prior or concurrent completion of other events in order to be successfully accomplished.

Note: FAR clause 52.232-16, Progress Payments (Mar 1994), does not apply to this contract.

DET 12-H007 LAUNCH DELAY CLAUSE (FEB 2004)

Delays in Launch

1. Initial Launch Capability: An Initial Launch Capability date (ILC) shall be established with the issuance of each delivery order. ILC is defined as the first day on which the mission can be launched and shall be the first day of a 90 day Launch Window (LW) during which the Government can select the actual launch date.

2. ILC Changes: The Government may unilaterally modify the ILC during the course of the delivery order by Contracting Officer (CO) modification to the contract. Costs associated with the change in ILC shall be determined in accordance with paragraph 5 below.

3. Launch Date: No later than 60 days before the ILC, the Government will either establish a Launch Date (LD) within the 90-day Launch Window, or change the ILC, thus establishing and paying for a new 90-day window. Should the Government fail to establish the Launch Date by ILC-60 days, the ILC becomes the Launch Date.

4. Grace (non-chargeable) period: Once the Launch Date is established, the following 15 days shall be considered a grace period. During this period, the Launch Date may be modified by mutual agreement between the Government and Contractor Program Managers and will not be determined by CO notification to the Contractor. No additional costs shall be charged to either party during this 15-day grace period. If the launch date is slipped beyond the 15 day grace period by the Government, a new Launch Date shall be established, and paid for by the Government, with an additional 15 day grace period. Costs associated with the change in the Launch Date shall be determined in accordance with paragraph 5 below.

5. Contractor-caused Delays:
For Contractor caused delays (excluding slips within the 15-day grace period), applicable consideration will be negotiated.

6. All payments and entitlements under this clause are subject to the availability of funds and the Limitation of Funds and/or Limitation of Government's Obligation clauses contained in this contract.

DET 12-H008 SMC 52.15-2 ENABLING CLAUSE BETWEEN PRIME CONTRACTORS AND SERVICE CONTRACTORS (FEB 2004)

(a) The Air Force has entered into contracts with Northrop Grumman Corporation for services to provide Advisory and Assistance Services (A&AS) including technical, evaluation, and acquisition management support.

(b) Service tasks involve the application of a broad range of education, skills, knowledge, and experience in many disciplines in support of weapon system acquisition tasks. Tasks involve independent validation and verification, technical assistance and reviews.

(c) In the performance of this contract, the Contractor agrees to cooperate with Northrop Grumman by: providing access to technical information and research, development and planning data, test data and results, schedule and milestone data, all in original form or reproduced; discussing technical matters related to the program; providing access to Contractor facilities utilized in the performance of this contract; and allowing observation of technical activities by appropriate A&AS Contractor technical personnel.

(d) The Contractor further agrees to include in each subcontract over $1 million or 10 percent of prime contract value, whichever is less, a clause requiring compliance by a subcontractor and succeeding levels of subcontractors with the response and access provisions of paragraph (c) above, subject to coordination with the Contractor. This agreement does not relieve the Contractor of responsibility to manage subcontracts effectively and efficiently, nor is

it intended to establish privity of contracts between the Government or the service Contractor(s) and such subcontractors.

(e) Service Contractor personnel are not authorized to direct a Contractor in any manner.

(f) Service contracts contain an organizational conflict of interest clause that requires the service Contractors to protect the data and prohibits the service Contractors from using the data for any purpose other than that for which the data was presented.

(g) Neither the Contractor nor their subcontractors shall be required in the satisfaction of the requirements of this clause to perform any effort or supply any documentation not otherwise required by their contract or subcontract.

DET 12-H009 MISSION SUCCESS DETERMINATION PROCESS (JUN 2004)

(a) The Government shall unilaterally determine mission failure or success in accordance with the criteria defined in this clause. The Government shall make a determination within 45 days after Government receipt of Contractor provided post-flight data (refer to paragraph (b) (1) below). The determination of mission failure or success by the Government shall be unilateral, and not subject to the provisions in the "Disputes" clause herein.

(b) Mission Success Verification: A successful flight will require verification of successful insertion of the payload in the prescribed orbit/trajectory. Verification of insertion accuracies will be the responsibility of the Government based on data provided by the Contractor and other independent sources. The Contractor must provide insertion of the payload into its prescribed orbit/trajectory without causing damage to the payload through RSS-induced environments, which exceed the environments specified in the "Launch Vehicle To Payload Interface Control Document (ICD)." Obtaining the environmental data telemetry, in a reliable and useful form, is the responsibility of the Contractor. The specific telemetry to be provided is described below. Verification of RSS environments to which the payload is exposed is the responsibility of the Government. If, however, such verification cannot be accomplished, and the payload performs its functions once inserted in orbit/trajectory, then the RSS launch vehicle shall be presumed to have performed within specification requirements.

(1) Contractor Responsibilities: The Contractor shall provide to the Government, within 30 days after launch, the following data for post-flight review:

(i) Orbit/trajectory elements determined from vehicle guidance data and any available GPS data.

(ii) Vehicle data indicating payload separation.

(iii) Vehicle environmental data, including shock, vibration, acceleration, and thermal data, including data at the vehicle/payload interface.

(iv) Vehicle sequencing and attitude data.

(v) Any other information or data in possession of the Contractor which the Government deems necessary in making a mission success determination.

(vi) The Contractor shall not be responsible for any costs associated with the loss of the payload.

(2) Government Responsibilities: The Government shall collect information and data from the following sources for evaluation purposes. This information and data shall be made available to the Contractor upon written request and within limitations of security classifications and operational demands.

(i) Orbit/trajectory elements determined from tracking and telemetry provided by the observing networks.

(ii) Payload telemetry data provided by the observing networks.

(iii) Any other information or data which the Government deems necessary in making a mission success determination.

(c) Waivers

(1) In the event that the Government Mission Director (MD) elects to start or continue a launch operation and the Contractor has reason to believe that an item of the RSS system (including hardware, software, procedures, GFE, or support equipment) is not in a flight-ready condition, the Contractor shall give notice of its objection in writing to the MD. In the event, however, that during terminal countdown, time does not permit the Contractor to submit its objection in writing, the MD shall be informed verbally. If the MD decides to proceed with the launch, the MD shall, via the audio tape of the command channel, acknowledge receipt of the objection, and announce his decision to waive the specific failure mode. The Contractor shall, within one hour of such a verbal objection, resubmit his objection in writing to the MD.

(2) Verbal objection from the Contractor shall not be accepted after COMMIT START when time does not permit a STOP COMMIT action to be taken. Verbal objections from the Contractor which occur after COMMIT START, which are not phrased in accordance with terminal count procedures, shall not be accepted.

(3) In all cases, the Contractor shall identify the item or items believed to be in non-flight-ready status.

(4) If the flight is a mission failure and its failure is caused by an item which is the subject of a waived failure mode, the flight shall be scored as a mission success for the purpose of determining the Mission Success Payment (MSP).

(5) If the flight is a mission failure due to failure of any item which is not the subject of a waived failure mode, the mission shall be scored in accordance with the criteria of this clause.

(d) Evaluation Factors

The Mission Success Payment shall be based on four evaluation factors. These factors are defined below separately for Spacelift Vehicle missions. The Government shall determine to what extent each factor is applicable and its weighting for any given mission.

(1) Spacelift Vehicle Mission Factors:

(i) Altitude: The 3-sigma altitude, as described by an apoapsis and a periapsis, at which the launch vehicle shall insert the payload.

(ii) Inclination: The 3-sigma inclination at which the launch vehicle shall insert the payload.

(iii) Flight Environments: An aggregate factor encompassing, but not limited to, acoustic, vibration, and pyro shock environments, axial and lateral accelerations, and fairing temperatures. These conditions are generally measured at the launch vehicle-to-payload interface (usually the separation plane).

(iv) Mission Events: An aggregate factor encompassing, but not limited to, such critical events as staging, fairing separation, and payload separation.

(2) The factors (including their weighting as a percent of the total mission success pool available) shall be based on the launch vehicle capability and on the mission requirements, and shall be determined and negotiated no earlier than three (3) months, and no later than one (1) month prior to launch. Each factor shall be evaluated and a score assigned from 0 to 100%. The total MSP awarded will be determined from the score for each factor times its weighting except in the case of total mission failure as defined in paragraph (e).

$MSP = P \times (wiFi + wiiFii + wiiiFiii + wivFiv)$

P = Total mission success pool.
wi = The pre-mission weighting assigned to Factor (i) as a percentage of the award pool available.
Fi = The post-mission score assigned to Factor (i) (from 0 to 100% depending on the degree of success).

(e) Total Mission Failure

The MSP shall be equal to zero ($ 0.00) in the event of a total mission failure. Total mission failure is defined as:

(1) The payload is destroyed or lost during the launch phase or the payload cannot be separated from the launch vehicle, and the launch vehicle (including any performance options) performed in a manner that caused the payload to be destroyed, lost, or unable to be separated.

(2) The operational utility of the payload is such that few or no mission objectives can be achieved, and it is determined from the flight data that the launch vehicle performed in a manner that caused damage to the payload.

(f) Failures due to other sources

Failures attributed to sources outside of the contractor's control shall not be considered as failures in determining MSP unless it can be shown that the failures were caused by launch vehicle induced environments in excess of ICD values or mishandling by the Contractor. Also, if a launch is aborted after liftoff by an act of the Government test range facility or of the Commercial Spaceport authorities, and the RSS launch vehicle was performing within specification requirements and safety limits, the launch shall be scored a mission success.

(g) MSP Pool

The pool available for each mission shall be $450,000, regardless of vehicle type and ordering year. Whereas the normal fee/profit may be adjusted for within-scope changes to awarded delivery orders, the MSP pool shall not automatically change as a result of modifications to scope, unless specifically addressed within that modification.

(h) Accident Investigation Procedures

In the event of mission failure (as defined in paragraph (e) of this provision) the Contractor shall conduct, and bear all costs associated with, a failure investigation to determine and implement the corrective action(s) required. The Government shall have directive command over the investigation. The investigation shall include Government team members and the RSLP A&AS contractor(s). The Mission Success Payment shall be determined based on and in conjunction with the findings of the failure investigation. The Government retains the right to approve all corrective actions. The Contractor agrees to implement all required corrective action(s), at no price increase to the Government, for all applicable missions on contract at the time of failure, as well as for the first mission contracted following the failure. Any costs associated with the implementation of corrective action(s) for missions not yet on contract (excepting the aforementioned first mission) may entitle both parties to an equitable cost adjustment. In the event the Government elects to form its own, independent failure investigation team, additive costs incurred by the Contractor in providing additional support to such a team, and costs to perform additional investigations or to implement corrective action(s) beyond that recommended by the Contractor's investigation team and accepted by the Government shall be grounds for an equitable adjustment. The Contractor shall also prepare and furnish to the Government data and reports applicable to the Contractor's failure investigation and corrective action(s).

H023 INDEFINITE QUANTITY (SEP 1997) (TAILORED)

This is an Indefinite Quantity contract as contemplated by FAR 16.504. The total scope of the technical tasks for which orders may be issued is set forth in paragraph 2.0 of the attached Statement of Work. The maximum dollar amount the Government may order under this contract is $100,000,000.00 ; the minimum amount is the awarded amount of Task Order 1, a user's guide. Budget constraints limit this amount to a maximum of $30,000 per guide.

Offerors agree, as evidenced by submission of their proposal, that the contract's guaranteed minimum, the awarded amount of Task Order 1 (feasibility special study), is more than a nominal amount and this amount is adequate consideration to form a legally binding contract.

H024 ORDERING PROCEDURES (SEP 1997) (TAILORED)

1. Orders will be issued by a Procuring Contracting Officer in accordance with the Ordering clause (FAR 52.216-18) of this contract. However, the following procedures shall be used for the evaluation and award of task orders.

(a) The following will be adhered to for all future work conducted under this contract. A request for a task order proposal shall be issued. It is possible that a successful offeror under the basic contract will not receive award of any task, except for the minimum guaranteed order. The Government does not guarantee any equality of orders to be placed on the various contracts. The Government reserves the right to issue all orders above the minimum guaranteed amount to one contractor, if the Contracting Officer should deem such action to be in the best interests of the Government.

(b) Award of this contract does not preclude the use of Government personnel and services if they are deemed by the Government to be more beneficial in terms of meeting technical requirements, cost, or schedule.

2. Performance cannot be authorized except by a task order issued by the contracting officer.

3. Task Order Proposal Process. The Air Force shall prepare a task order specific Mission Requirements Document (MRD) outlining the requirements and scope of the work to be accomplished. The Procuring Contracting Officer (PCO) shall issue a Task Order Request for Proposal (RFP) for each task order. Task Order RFPs will only be issued to those contractors awarded a contract that the government believes have the capability of meeting the mission requirements including, but not limited to any or all of the following; schedule, mission planning, design, fabrication, integration, test, and launch capabilities. Upon receipt of the Task Order RFP, the Contractor is requested to submit its FPIF proposal, as specified by the government, including proposed subcontracts, for the task order effort within the number of days specified in the Task Order RFP. In the proposal the contractor shall identify risk reduction activities, past performance since contract award, and price. If necessary, in order to protect proprietary data, any subcontractor may submit its cost proposal directly to the PCO.

4. Evaluation Criteria. The Air Force shall use the following criteria to evaluate task order proposals:

When a task order RFP is released with the Mission Requirements Document (MRD), offerors will submit a past performance and price proposal. Risk will be assessed based on the basic contract award risk assessment and consideration of any new risk reduction activities submitted by the offeror prior to RFP release. An offeror may submit risk reduction data at any time they feel they have conducted risk reduction activities that might lower the Government risk assessment. The relative importance of price, past performance and risk will be identified with the task order RFP. The Government will conduct a mini-competition between all qualified vehicle configurations to determine the Best Value. Any change to form, fit or function of the basic vehicle configuration (as identified in the users guide) will require a Special Study award to identify proposed solutions/design changes to meet the new requirement. A Special Study will be issued to each qualified offeror and will result in a new configuration and updated User's Guide. If issued, the results of the Special Study will be evaluated under performance risk. The evaluation factors are as follows:

(a) Past Performance - The contractor's performance on tasks previously awarded under this contract, or any other contract using relevancy tables in section M, will be evaluated. The lack of task order award, lack of other past performance or lack of performance under this contract will not be considered a weakness and no penalty shall be assessed.

(b) Price - Price will be evaluated on each order and will have a significant role in award decisions. However, relative importance, compared to the technical factors, may vary based on the Task Order Requirements. Contractors must propose a price matrix which breaks out cost by man hours and materials against the WBS Level 3. Prices proposed must be determined realistic and reasonable. Additionally, the Government reserves the right to

evaluate on the overall cost to the Government to include, but not limited to, range support, (if outside the proposed costs), equipment transport, logistics, site specific launch vehicle or launch campaign, etc.

(c) Performance Risk - Proposal Risk will focus on the risks and weaknesses associated with each offeror's proposed approach and includes an assessment of the potential for disruption of schedule, increased cost, and degradation of performance, and the need for increased Government oversight, as well as the likelihood of unsuccessful contract performance. It will include any risk reduction activities conducted since award of the basic contract. For each identified risk, the offeror's proposed approach to mitigating that risk will be assessed to determine if the risk is manageable. If a Special Study was issued, the results will be evaluated under performance risk.

(d) The contracting Officer's decision shall be final and shall not be subject to the Disputes clause of this contract.

In the event the Government deems it is necessary, the Delivery Order RFP will include additional criteria to be evaluated during the mini-competition. This may not require a special study.

5. Evaluation Process. The evaluation will occur in the following manner:

(a) A team consisting of at least the Project Officer and a Responsive Small Spacelift (RSS) Program technical advisor will evaluate each contractor's technical submission. Each submission will be evaluated on its own merits and not compared to the submissions of other offerors. The evaluation team will recommend a contractor to whom the task order should be assigned based on the evaluation criteria. A team consisting of at least the contracting officer and one pricing analyst will conduct the cost/price analysis. Price analysis will be conducted on those orders which provide adequate price competition. Cost and pricing data will not be required if adequate price competition exists. However, if the contracting officer determines that price reasonableness can not be determined based on pricing data submitted, additional information shall be requested.

(b) After proposal evaluation, the PCO/Buyer and Project Officer may conduct exchanges with the offeror to discuss aspects of the proposal. Each order is anticipated to be awarded without discussions so offerors are encouraged to submit their best offer in their original submission.

(c) If discussions are determined necessary, the task order Statement of Work and proposal may be revised as necessary. The Government reserves the right to hold discussions with the offeror(s) most likely to receive award of the Task Order.

(d) The RSS PCO will determine to which contractor the government will assign task orders valued less than $10M, based on the results of the technical evaluation, recommendation of the technical team, and analysis of proposed cost/price. For task orders valued over $10M, the SSA shall be SMC Det 12/CC.

(e) Lowest-Priced Technically Acceptable (LPTA) Evaluation Method--The Government reserves the right to use the LPTA evaluation method, in conjunction with a past performance evaluation, when the Government deems this method most appropriate for the Task Order being evaluated.

(f) Upon award of a task order, all offerors may request a debriefing concerning the evaluation of their proposal.

6. Security Requirements. Security requirements will be mission-specific and will be delineated in the DD254 issued with individual task orders that may be awarded against the basic contract.

H025 INCORPORATION OF SECTION K (OCT 1998)

Section K of the solicitation is hereby incorporated by reference.

H029 IMPLEMENTATION OF DISCLOSURE OF INFORMATION (OCT 1997) (TAILORED)

In order to comply with DFARS 252.204-7000, Disclosure of Information, the following copies of the information to be released are required at least 45 days prior to the scheduled release date:

(a) one (1) copy to: Office of Public Affairs, SMC Det 12/CCX, 3548 Aberdeen Ave., SE Kirtland AFB, NM 87117.

(b) one (1) copy to: Contracting Officer, SMC Det 12/PKN, 3548 Aberdeen Ave. SE, Kirtland AFB, NM 87117.

(c) one (1)copy to: Program Manager, SMC Det 12/RPE, 3548 Aberdeen Ave., SE, Kirtland AFB, NM 87117.

H033 SOLICITATION NUMBER (APR 1998) (TAILORED)

Solicitation Number: FA8818-04-R-0010

H040 ASSOCIATE CONTRACTOR AGREEMENTS (FEB 2003) (TAILORED)

(a) The Contractor shall enter into Associate Contractor Agreements (ACA) for any portion of the contract requiring joint participation in the accomplishment of the Government's requirement. The agreements shall include the basis for sharing information, data, technical knowledge, expertise, and/or resources essential to the performance of the task order which shall ensure the greatest degree of cooperation for the development of the program to meet the terms of the contract. Associate Contractors are listed in (h) below.

(b) ACAs shall include the following general information:

(1) Identify the associate contractors and their relationships.

(2) Identify the program involved and the relevant Government contracts of the associate Contractors.

(3) Describe the associate contractor interfaces by general subject matter.

(4) Specify the categories of information to be exchanged or support to be provided.

(5) Include the expiration date (or event) of the ACA.

(6) Identify potential conflicts between relevant Government contracts and the ACA; include agreements on protection of proprietary data and restrictions on employees.

(c) A copy of such agreement shall be provided to the Contracting Officer for review before execution of the document by the cooperating contractors.

(d) Nothing in the foregoing shall affect compliance with the requirements of the clause at 5352.209-9002, Organizational Conflict of Interest.

(e) The Contractor is not relieved of any contract requirements or entitled to any adjustments to the contract terms because of a failure to resolve a disagreement with an associate contractor.

(f) Liability for the improper disclosure of any proprietary data contained in or referenced by any agreement shall rest with the parties to the agreement, and not the Government.

(g) All costs associated with the agreements are included in the negotiated cost of this contract. Agreements may be amended as required by the Government during the performance of this contract.

(h) The following contractors are associate contractors with whom agreements are required:

CONTRACTOR ADDRESS PROGRAM/CONTRACT
To be identified in individual task orders.

H082 SUBMISSION OF SUBCONTRACTING PLAN (FEB 2003)

In accordance with FAR 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan, the Contract's preliminary Subcontracting Plan TBD dated TBD, has been approved and is incorporated herein by reference. The final plan meeting the minimum requirements of FAR 19.704, Subcontracting plan requirements, must be submitted in sufficient time to permit negotiations thereof within 90 days, or before definitization, whichever occurs first.

H087 GOVERNMENT- FURNISHED PROPERTY (GFP) (FEB 2003) (TAILORED)

Pursuant to the Government Property clause herein, the Government may furnish (based on the requirements of individual task orders) the item(s) of property listed below as Government-Furnished Property (GFP) to the Contractor, f.o.b. TBD (insert origin or destination as appropriate), for use in performance of this contract. Upon completion of the contract, the Contractor shall obtain disposition instructions from the Government Property Administrator of the activity having responsibility for administration of the contract.

ITEM NR NSN NOUN PART NO QTY DELIVERY DATE
TBD (To be listed in individual task orders issued against the basic contract.)

Contract Clauses in this section are from the FAR, Defense FAR Sup, Air Force FAR Sup, and the Air Force Materiel Command FAR Sup, and are current through the following updates:

Database_Version: 6.1.x.700; Issued: 6/22/2004; FAR: FAC 2001-24 (Partial); DFAR: DCN20040608; DL.: DL 98-021; Class Deviations: CD 2003o0003; AFFAR: 2002 Edition; AFMCFAR: AFMCAC 02-04; AFAC: AFAC 2004-0419; IPN: 98-009

I. NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

A. FEDERAL ACQUISITION REGULATION CONTRACT CLAUSES

52.202-01	DEFINITIONS (DEC 2001)
52.203-03	GRATUITIES (APR 1984)
52.203-05	COVENANT AGAINST CONTINGENT FEES (APR 1984)
52.203-06	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUL 1995)
52.203-07	ANTI-KICKBACK PROCEDURES (JUL 1995)
52.203-08	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 2003)
52.204-02	SECURITY REQUIREMENTS (AUG 1996)
52.204-04	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)
52.204-07	CENTRAL CONTRACTOR REGISTRATION (OCT 2003)
52.209-06	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)
52.211-05	MATERIAL REQUIREMENTS (AUG 2000)
52.215-02	AUDIT AND RECORDS -- NEGOTIATION (JUN 1999)
52.215-08	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT (OCT 1997)
52.215-10	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (OCT 1997)
52.215-11	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--MODIFICATIONS (OCT 1997)
52.215-12	SUBCONTRACTOR COST OR PRICING DATA (OCT 1997)
52.215-13	SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS (OCT 1997)
52.215-14	INTEGRITY OF UNIT PRICES (OCT 1997)
52.215-21	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA--MODIFICATIONS (OCT 1997)
52.216-08	FIXED FEE (MAR 1997)
52.216-16	INCENTIVE PRICE REVISION -- FIRM TARGET (OCT 1997) Para (a), Line Item numbers: '0001' Para (a), In no event shall the total final price of these items exceed the ceiling price of: '(refer to Section B, "Supplies or Services and Prices/Costs")' Para (c)(1), Number of days: '30' Para (d)(2)(ii), Percent: '(Refer to Section B, Supplies or Services and Prices/Costs)' Para (d)(2)(iii), Percent: '(Refer to Section B, Supplies or Services and Prices/Costs)'
52.216-18	ORDERING (OCT 1995) Para (a), Issued from date is 'Date of contract award' Para (a), Issued through date is '60 months after contract award'
52.216-19	ORDER LIMITATIONS (OCT 1995) Para (a). Insert Dollar amount or quantity. '$0.00' Para (b)(1). Insert dollar amount or quantity '$100,000,000.00' Para (b)(2). Insert dollar amount or quantity. '$100,000,000.00'

	Para (b)(3). Insert number of days. '1'
	Para (d). Insert number of days. '14'
52.216-22	INDEFINITE QUANTITY (OCT 1995)
	Para (d), Date is 'twenty-four months after issuance of the final order'
52.217-08	OPTION TO EXTEND SERVICES (NOV 1999)
	Period of time. '30 days of'
52.219-04	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)
52.219-08	UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)
52.219-09	SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2002) - ALTERNATE II (OCT 2001)
52.219-16	LIQUIDATED DAMAGES -- SUBCONTRACTING PLAN (JAN 1999)
52.222-01	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)
52.222-02	PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)
	Para (a), Dollar amount is '$0.00'
52.222-03	CONVICT LABOR (JUN 2003)
52.222-19	CHILD LABOR--COOPERATION WITH AUTHORITIES AND REMEDIES (JAN 2004)
52.222-20	WALSH-HEALEY PUBLIC CONTRACTS ACT (DEC 1996)
52.222-21	PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)
52.222-26	EQUAL OPPORTUNITY (APR 2002)
52.222-35	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)
52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)
52.223-03	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997)
	Para (b), Material Identification No: 'Unknown at this time, dependent on vehicle configuration.'
52.223-05	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (AUG 2003)
52.223-05	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (AUG 2003) - ALTERNATE I (AUG 2003)
52.223-06	DRUG-FREE WORKPLACE (MAY 2001)
52.223-11	OZONE-DEPLETING SUBSTANCES (MAY 2001)
52.223-14	TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (DEC 2003)
52.227-01	AUTHORIZATION AND CONSENT (JUL 1995)
52.227-02	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)
52.227-03	PATENT INDEMNITY (APR 1984)
52.228-05	INSURANCE -- WORK ON A GOVERNMENT INSTALLATION (JAN 1997)
52.228-07	INSURANCE -- LIABILITY TO THIRD PERSONS (MAR 1996)
52.229-03	FEDERAL, STATE, AND LOCAL TAXES (APR 2003)
52.230-02	COST ACCOUNTING STANDARDS (APR 1998)
52.230-06	ADMINISTRATION OF COST ACCOUNTING STANDARDS (NOV 1999)
52.232-01	PAYMENTS (APR 1984)
52.232-08	DISCOUNTS FOR PROMPT PAYMENT (FEB 2002)
52.232-09	LIMITATION ON WITHHOLDING OF PAYMENTS (APR 1984)
52.232-11	EXTRAS (APR 1984)
52.232-17	INTEREST (JUN 1996)
52.232-20	LIMITATION OF COST (APR 1984)
52.232-22	LIMITATION OF FUNDS (APR 1984)
52.232-23	ASSIGNMENT OF CLAIMS (JAN 1986)
52.232-25	PROMPT PAYMENT (OCT 2003)
52.232-32	PERFORMANCE-BASED PAYMENTS (FEB 2002)
52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER--CENTRAL CONTRACTOR REGISTRATION (OCT 2003)
52.233-01	DISPUTES (JUL 2002)

52.233-03	PROTEST AFTER AWARD (AUG 1996)
52.237-02	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT AND VEGETATION (APR 1984)
52.242-01	NOTICE OF INTENT TO DISALLOW COSTS (APR 1984)
52.242-03	PENALTIES FOR UNALLOWABLE COSTS (MAY 2001)
52.242-04	CERTIFICATION OF FINAL INDIRECT COSTS (JAN 1997)
52.242-13	BANKRUPTCY (JUL 1995)
52.243-01	CHANGES -- FIXED-PRICE (AUG 1987)
52.243-01	CHANGES -- FIXED-PRICE (AUG 1987) - ALTERNATE II (APR 1984)
52.243-02	CHANGES -- COST-REIMBURSEMENT (AUG 1987)
52.243-02	CHANGES -- COST-REIMBURSEMENT (AUG 1987) - ALTERNATE II (APR 1984)
52.243-06	CHANGE ORDER ACCOUNTING (APR 1984)
52.243-07	NOTIFICATION OF CHANGES (APR 1984) Para (b), Number of calendar days is (insert 30 for RDSS/C) '30 days' Para (d), Number of calendar days is (insert 30 for RDSS/C) '30 days'
52.244-02	SUBCONTRACTS (AUG 1998) - ALTERNATE I (AUG 1998) Para (e), Contractor shall obtain the Contracting Officer's written consent before placing the following subcontracts: 'which exceed $1,000,000' Para (k), Insert subcontracts which were evaluated during negotiations: 'To be determined.'
52.244-05	COMPETITION IN SUBCONTRACTING (DEC 1996)
52.244-06	SUBCONTRACTS FOR COMMERCIAL ITEMS (APR 2003)
52.245-02	GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEVIATION) (JUN 2003)
52.245-05	GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) (DEVIATION) (MAY 2004)
52.245-17	SPECIAL TOOLING (DEVIATION) (APR 1984)
52.245-18	SPECIAL TEST EQUIPMENT (FEB 1993)
52.245-19	GOVERNMENT PROPERTY FURNISHED "AS IS" (APR 1984)
52.246-25	LIMITATION OF LIABILITY -- SERVICES (FEB 1997)
52.247-67	SUBMISSION OF COMMERCIAL TRANSPORTATION BILLS TO THE GENERAL SERVICES ADMINISTRATION FOR AUDIT (JUN 1997)
52.248-01	VALUE ENGINEERING (FEB 2000) Para (m). Contract number. 'TBD'
52.249-02	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996)
52.249-06	TERMINATION (COST-REIMBURSEMENT) (MAY 2004)
52.249-08	DEFAULT (FIXED-PRICE SUPPLY AND SERVICE) (APR 1984)
52.249-14	EXCUSABLE DELAYS (APR 1984)
52.253-01	COMPUTER GENERATED FORMS (JAN 1991)

B. DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT CONTRACT CLAUSES

252.201-7000	CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)
252.203-7001	PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)
252.203-7002	DISPLAY OF DOD HOTLINE POSTER (DEC 1991)
252.204-7000	DISCLOSURE OF INFORMATION (DEC 1991)
252.204-7002	PAYMENT FOR SUBLINE ITEMS NOT SEPARATELY PRICED (DEC 1991)
252.204-7003	CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)
252.204-7004	ALTERNATE A TO FAR 52.204-7, CENTRAL CONTRACTOR REGISTRATION (NOV 2003)
252.204-7005	ORAL ATTESTATION OF SECURITY RESPONSIBILITIES (NOV 2001)
252.205-7000	PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (DEC 1991)
252.209-7000	ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ON-SITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)
252.209-7004	SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

252.211-7003	ITEM IDENTIFICATION AND VALUATION (JAN 2004)
	Para (c)(1)(ii). List of Contract Line, Subline, or Exhibit Line Item Nr and Item Description. '?????'
	Para (c)(1)(iii). Exhibit Nr. or N/A. '?????'
	Para (c)(1)(iii). CDRL Item Nr. or N/A. '?????'
252.215-7000	PRICING ADJUSTMENTS (DEC 1991)
252.215-7002	COST ESTIMATING SYSTEM REQUIREMENTS (OCT 1998)
252.219-7003	SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS) (APR 1996)
252.223-7001	HAZARD WARNING LABELS (DEC 1991)
252.223-7002	SAFETY PRECAUTIONS FOR AMMUNITION AND EXPLOSIVES (MAY 1994)
252.223-7003	CHANGE IN PLACE OF PERFORMANCE -- AMMUNITION AND EXPLOSIVES (DEC 1991)
252.223-7004	DRUG-FREE WORK FORCE (SEP 1988)
252.223-7006	PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS (APR 1993)
252.223-7007	SAFEGUARDING SENSITIVE CONVENTIONAL ARMS, AMMUNITION, AND EXPLOSIVES (SEP 1999)
	Nomenclature, National Stock Number, Sensitivity Category: '?????'
252.225-7001	BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM (APR 2003)
252.225-7002	QUALIFYING COUNTRY SOURCES AS SUBCONTRACTORS (APR 2003)
252.225-7004	REPORTING OF CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES (APR 2003)
252.225-7012	PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (FEB 2003)
252.225-7014	PREFERENCE FOR DOMESTIC SPECIALTY METALS (APR 2003)
252.225-7014	PREFERENCE FOR DOMESTIC SPECIALTY METALS (APR 2003) - ALTERNATE I (APR 2003)
252.225-7016	RESTRICTION ON ACQUISITION OF BALL AND ROLLER BEARINGS (APR 2003)
252.225-7031	SECONDARY ARAB BOYCOTT OF ISRAEL (APR 2003)
252.226-7001	UTILIZATION OF INDIAN ORGANIZATIONS, INDIAN-OWNED ECONOMIC ENTERPRISES, AND NATIVE HAWAIIAN SMALL BUSINESS CONCERNS (OCT 2003)
252.227-7002	READJUSTMENT OF PAYMENTS (OCT 1966)
252.227-7003	TERMINATION (AUG 1984)
252.227-7013	RIGHTS IN TECHNICAL DATA--NONCOMMERCIAL ITEMS (NOV 1995)
252.227-7016	RIGHTS IN BID OR PROPOSAL INFORMATION (JUN 1995)
252.227-7025	LIMITATIONS ON THE USE OR DISCLOSURE OF GOVERNMENT-FURNISHED INFORMATION MARKED WITH RESTRICTIVE LEGENDS (JUN 1995)
252.227-7030	TECHNICAL DATA--WITHHOLDING OF PAYMENT (MAR 2000)
252.227-7036	DECLARATION OF TECHNICAL DATA CONFORMITY (JAN 1997)
252.227-7037	VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA (SEP 1999)
252.228-7005	ACCIDENT REPORTING AND INVESTIGATION INVOLVING AIRCRAFT, MISSILES, AND SPACE LAUNCH VEHICLES (DEC 1991)
252.231-7000	SUPPLEMENTAL COST PRINCIPLES (DEC 1991)
252.232-7003	ELECTRONIC SUBMISSION OF PAYMENT REQUESTS (JAN 2004)
252.235-7003	FREQUENCY AUTHORIZATION (DEC 1991)
252.235-7003	FREQUENCY AUTHORIZATION (DEC 1991) - ALTERNATE I (DEC 1991)
252.235-7010	ACKNOWLEDGMENT OF SUPPORT AND DISCLAIMER (MAY 1995)
	Para (a), name of contracting agency(ies): 'United States Air Force'
	Para (a), contract number(s): 'FA8818-04-R-0010'
	Para (b), name of contracting agency(ies): 'United States Air Force'
252.235-7011	FINAL SCIENTIFIC OR TECHNICAL REPORT (SEP 1999)
252.242-7000	POSTAWARD CONFERENCE (DEC 1991)
252.242-7004	MATERIAL MANAGEMENT AND ACCOUNTING SYSTEM (DEC 2000)
252.243-7001	PRICING OF CONTRACT MODIFICATIONS (DEC 1991)
252.243-7002	REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

252.244-7000 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (DOD CONTRACTS) (MAR 2000)
252.245-7001 REPORTS OF GOVERNMENT PROPERTY (MAY 1994)
252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAY 2002)
252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

C. AIR FORCE FEDERAL ACQUISITION REGULATION SUPPLEMENT CONTRACT CLAUSES

5352.204-9000 NOTIFICATION OF GOVERNMENT SECURITY ACTIVITY AND VISITOR GROUP SECURITY AGREEMENTS (APR 2003)
5352.223-9000 ELIMINATION OF USE OF CLASS I OZONE DEPLETING SUBSTANCES (ODS) (APR 2003)
Para (c), List of Class I ODSs. 'To be provided by offeror'
5352.223-9001 HEALTH AND SAFETY ON GOVERNMENT INSTALLATIONS (JUN 1997)
5352.223-9003 ENHANCED SECURITY OF PRODUCTS (NOV 2002)
Line item number(s). '?????'
Identify where security requirements are specified; i.e., SOW, '?????'
5352.242-9000 CONTRACTOR ACCESS TO AIR FORCE INSTALLATIONS (JUN 2002)
Para (b), Any additional requirements to comply with local security procedures '?????'

II. NOTICE: The following contract clauses pertinent to this section are hereby incorporated in full text:

A. FEDERAL ACQUISITION REGULATION CONTRACT CLAUSES IN FULL TEXT

52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEP 1990)

This is a rated order certified for national defense use, and the Contractor shall follow all the requirements of the Defense Priorities and Allocations System regulation (15 CFR 700).

52.252-02 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es): http://farsite.hill.af.mil/

52.252-06 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

B. DEFENSE FAR SUPP CONTRACT CLAUSES IN FULL TEXT

252.232-7007 LIMITATION OF GOVERNMENT'S OBLIGATION (AUG 1993) (TAILORED)

(a) Contract line item(s) 0001 through 0005 are incrementally funded. For these item (s), the sum of (Available dollars to be inserted after negotiation) of the total price is presently available for payment and allotted to this contract. An allotment schedule is set forth in paragraph (i) of this clause.

(b) For item(s) identified in paragraph (a) of this clause, the Contractor agrees to perform up to the point at which the total amount payable by the Government, including reimbursement in the event of termination of those

item(s) for the Government's convenience, approximates the total amount currently allotted to the contract. The Contractor will not be obligated to continue work on those item(s) beyond that point. The Government will not be obligated in any event to reimburse the Contractor in excess of the amount allotted to the contract for those item(s) regardless of anything to the contrary in the clause entitled "Termination for Convenience of the Government." As used in this clause, the total amount payable by the Government in the event of termination of applicable contract line item(s) for convenience includes costs, profit, and estimated termination settlement costs for those item(s).

(c) Notwithstanding the dates specified in the allotment schedule in paragraph (i) of this clause, the Contractor will notify the Contracting Officer in writing at least ninety days prior to the date when, in the Contractor's best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 85 percent of the total amount then allotted to the contract for performance of the applicable item(s). The notification will state (1) the estimated date when that point will be reached and (2) an estimate of additional funding, if any, needed to continue performance of applicable line items up to the next scheduled date for allotment of funds identified in paragraph (i) of this clause, or to a mutually agreed upon substitute date. The notification will also advise the Contracting Officer of the estimated amount of additional funds that will be required for the timely performance of the item(s) funded pursuant to this clause, for a subsequent period as may be specified in the allotment schedule in paragraph (i) of this clause or otherwise agreed to by the parties. If after such notification additional funds are not allotted by the date identified in the Contractor's notification, or by an agreed substitute date, the Contracting Officer will terminate any item(s) for which additional funds have not been allotted, pursuant to the clause of this contract entitled "Termination for Convenience of the Government."

(d) When additional funds are allotted for continued performance of the contract line item(s) identified in paragraph (a) of this clause, the parties will agree as to the period of contract performance which will be covered by the funds. The provisions of paragraphs (b) through (d) of this clause will apply in like manner to the additional allotted funds and agreed substitute date, and the contract will be modified accordingly.

(e) If, solely by reason of failure of the Government to allot additional funds, by the dates indicated below, in amounts sufficient for timely performance of the contract line item(s) identified in paragraph (a) of this clause, the Contractor incurs additional costs or is delayed in the performance of the work under this contract and if additional funds are allotted, an equitable adjustment will be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the item(s), or in the time of delivery, or both. Failure to agree to any such equitable adjustment hereunder will be a dispute concerning a question of fact within the meaning of the clause entitled "Disputes."

(f) The Government may at any time prior to termination allot additional funds for the performance of the contract line item(s) identified in paragraph (a) of this clause.

(g) The termination provisions of this clause do not limit the rights of the Government under the clause entitled "Default." The provisions of this clause are limited to the work and allotment of funds for the contract line item(s) set forth in paragraph (a) of this clause. This clause no longer applies once the contract is fully funded except with regard to the rights or obligations of the parties concerning equitable adjustments negotiated under paragraphs (d) or (e) of this clause.

(h) Nothing in this clause affects the rights of the Government to terminate this contract pursuant to the clause of this contract entitled "Termination for Convenience of the Government."

(i) The parties contemplate that the Government will allot funds to this contract in accordance with the following schedule:

(To be inserted in individual task orders)

C. OTHER CONTRACT CLAUSES IN FULL TEXT

5352.209-9500 ORGANIZATIONAL CONFLICT OF INTEREST (AFSPCFARS) (NOV 2002)

5352.209-9500 Organizational Conflict of Interest.
(a) The following restrictions and definitions aaapply to prevent conflicting roles, which may bias the Contractor's judgment or objectivity, or to preclude the Contractor from obtaining an unfair competitive advantage in concurrent or future acquisitions.
(1) Descriptions or definitions:
(i) "Contractor" means the business entity receiving the award of this contract, its parents, affiliates, divisions and subsidiaries.
(ii) "Development" means all efforts towards solution of broadly defined problems. This may encompass research, evaluating technical feasibility, proof of design and test, or engineering of programs not yet approved for acquisition or operation.
(iii) "Proprietary Information" means all information designated as proprietary in accordance with law and regulation, and held in confidence or disclosed under restriction to prevent uncontrolled distribution. Examples include limited or restricted data, trade secrets, sensitive financial information, and computer software; and may appear in cost and pricing data or involve classified information.
(iv) "System" means the system that is the subject of this contract.
(v) "System Life" means all phases of the system's development, production, or support.
(vi) "Systems Engineering" means preparing specifications, identifying and resolving interface problems, developing test requirements, evaluating test data, and supervising design.
"Technical Direction" means developing work statements, determining parameters, directing other Contractors' operations, or resolving technical controversies.
(2) Restrictions: The Contractor shall perform systems engineering and/or technical direction, but will not have overall contractual responsibility for the system's development, integration, assembly and checkout, or production. The parties recognize that the Contractor shall occupy a highly influential and responsible position in determining the system's basic concepts and supervising their execution by other Contractors. The Contractor's judgment and recommendations must be objective, impartial, and independent. To avoid the prospect of the Contractor's judgment or recommendations being influenced by its own products or capabilities, it is agreed that the Contractor is precluded for the life of the system from award of a DoD contract to supply the system or any of its major components, and from acting as a subcontractor or consultant to a DoD supplier for the system or any of its major components.

5352.227-9500 EXPORT-CONTROLLED DATA RESTRICTIONS (AFSPCFARS). (NOV 2002)

EXPORT-CONTROLLED DATA RESTRICTIONS. (NOV 2002)

EXPORT-CONTROLLED DATA RESTRICTIONS (AFSPCFARS) (NOV 2002)
(a) For the purpose of this clause;
(1) Foreign person is any person who is not a citizen or national of the U.S. or lawfully admitted to the U.S. for permanent residence under the Immigration and Nationality Act, and includes foreign corporations, international organizations, and foreign governments;
(2) Foreign representative is anyone, regardless of nationality or citizenship, acting as an agent, representative, official, or employee of a foreign government, a foreign-owned or influenced firm, corporation or person;
(3) Foreign sources are those sources (vendors, subcontractors, and suppliers) owned and controlled by a foreign person; and
(b) The Contractor shall place a clause in subcontracts containing appropriate export control restrictions, set forth in this clause.
(c) Nothing in this clause waives any requirement imposed by any other U.S. Government agency with respect to employment of foreign nationals or export controlled data and information.
(d) Equipment and technical data generated or delivered under this contract are controlled by the International Traffic in Arms Regulation (ITAR), 22 CFR Sections 121 through 128. An export license is required before assigning any foreign source to perform work under this contract or before granting access to foreign persons to any equipment and technical data generated or delivered during performance (see 22 CFR Section 125). The Contractor shall notify the Contracting Officer and obtain written approval of the Contracting Officer prior to assigning or

granting access to any work, equipment, or technical data generated or delivered under this contract to foreign persons or their representatives. The notification shall include the name and country of origin of the foreign person or representative, the specific work, equipment, or data to which the person will have access, and whether the foreign person is cleared to have access to technical data (DoD 5220.22-M, National Industrial Security Program Operating Manual (NISPOM)).

ALT III ORGANIZATIONAL CONFLICT OF INTEREST, ALTERNATE III (AFSPCFARS) (NOV 2002)

b) The Contractor may gain access to proprietary information of other companies during contract performance. The Contractor agrees to enter into company-to-company agreements to (1) protect another company's information from unauthorized use or disclosure for as long as it is considered proprietary by the other company and (2) to refrain from using the information for any purpose other than that for which it was furnished. For information purposes, the Contractor shall furnish copies of these agreements to the Contracting Officer. These agreements are not intended to protect information, which is available to the Government or to the Contractor from other sources and furnished voluntarily without restriction.

DOCUMENT	PGS	DATE	TITLE
EXHIBIT A	2	04 JUN 2004	CONTRACT DATA REQUIREMENTS LIST (CDRL)
ATTACHMENT 1	5	25 JUN 2004	RSS STATEMENT OF OBJECTIVES (SOO)
ATTACHMENT 2	15	25 JUN 2004	RSS TECHNICAL REQUIREMENTS DOCUMENT, GROUND LAUNCH
ATTACHMENT 3	15	25 JUN 2004	RSS TECHNICAL REQUIREMENTS DOCUMENT, AIR LAUNCH
ATTACHMENT 4	14	25 JUN 2004	RSS MISSION REQUIREMENTS DOCUMENT, GROUND LAUNCH
ATTACHMENT 5	14	25 JUN 2004	RSS MISSION REQUIREMENTS DOCUMENT, AIR LAUNCH
ATTACHMENT 6	TBD		CONTRACTOR STATEMENT OF WORK (CSOW)
ATTACHMENT 7	TBD		CONTRACTOR INTEGRATED MASTER PLAN (IMP)
ATTACHMENT 8	5	16 JUN 2004	SAMPLE WBS
ATTACHMENT 9	TBD		MODEL TASK ORDER

Responsive Small Spacelift (RSS) – FA8818-04-R-0010
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CDRL No.	Title -- Sub-Title	DID
A001	Detail Specification Documents	DI-SDMP-81464
A002	Conceptual Design Drawings	DI-DRPR-81001A
A003	Developmental Design Drawings and Associated Lists	DI-DRPR-81002A
A004	Technical Report – Study/Services -- Design Review Package	DI-MISC-80508A
A005	Test Procedure	DI-NDTI-80603
A006	Test/Inspection Report -- Factory Test Reports	DI-NDTI-80809B
A007	Range Safety Data for Aerodynamic Weapons (RSDAW)	DI-SAFT-80181
A008	Explosive Hazard Classification Data	DI-SAFT-81299
A009	Flight Termination System Report (FTSR)	DI-SAFT-80183A
A010	Mishap Risk Assessment Report (MRAR) -- Accident or Critical Mishap Reporting	DI-SAFT-81300
A011	Technical Report – Study/Services -- Universal Documentation System (UDS) Inputs	DI-MISC-80508A
A012	Software Development Plan	DI-IPSC-81427A
A013	Software Requirements Specification	DI-IPSC-81433A
A014	Interface Control Drawing Documentation	DI-CMAN-81248
A015	Technical Report – Study/Services -- Mission Countdown Procedures	DI-MISC-80508A
A016	Test/Inspection Report -- Mission Analysis Report	DI-NDTI-80809B
A017	Integrated Master Schedule (IMS)	DI-MISC-81183A
A018	Computer Software Product End Items	DI-MCCR-80700
A019	Technical Report – Study/Services – Waivers	DI-MISC-80508A
A020	Software Version Description	DI-IPSC-81442A
A021	Software Test Description – Software Test Plan/Description	DI-IPSC-81439A
A022	Software Test Report	DI-IPSC-81440A

A023	**Failure Analysis and Corrective Action Report**	**DI-RELI-81315**
A024	**Technical Report – Study/Services -- Analysis Reports**	**DI-MISC-80508A**
A025	**Technical Report – Study/Services – Handbook for Payload Designers**	**DI-MISC-80508A**
A026	**Performance Specification Documents – System Performance Specification**	**DI-SDMP-81465A**
A027	**Report, Record of Meeting/Minutes – Management Reviews/Technical Meetings/Telecons**	**DI_ADMN-81505**
B001	**Contract Funds Status Report (CFSR)**	**DI-MGMT-81468**
B002	**Cost Performance Report (CPR)**	**DI-MGMT-81466**
B003	**Status Report – Small Business Subcontracting Data**	**DI-MGMT-80368**

STATEMENT OF OBJECTIVES (SOO)

Responsive Small Spacelift (RSS)

DRAFT

25 Jun 2004

Prepared by SMC Det 12/RPS

Approved by: _____

Date

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1.0 INTRODUCTION

The Responsive Small Spacelift (RSS) program supports the Rocket System Launch Program (RSLP) with commercial low cost and quick reaction Spacelift of small satellites. The RSS is a Multiple Award Indefinite Delivery Indefinite Quality (IDIQ) Task Order contract that will support ground and air launched Spacelift vehicles for various government agencies.

2.0 STRUCTURE

This Statement of Objectives (SOO) provides the RSS program objectives. The Technical Requirements Document (TRD) provides the Spacelift requirements for all missions. The TRD establishes the requirements for the orbits, payload weight, period of performance, payload interfaces, design, development, fabrication, integration, analysis, ground testing, delivery, and launch operations of both Aerospace Vehicle Equipment (AVE) and Support Equipment (SE) which make up the Spacelift Vehicles supporting the RSS program.

3.0 OBJECTIVES

3.1 Program Objective: The RSS objective is to provide spacelift capability and services for placing small satellites and experiments into specified orbits. Prior to each mission, the user's mission specific requirements will be identified in a Mission Requirement Document (MRD). The offeror must have the capability to launch a ground launched vehicle within 12-months or less from Delivery Order issuance and provide an air-launched missile within 18 months or less from Delivery Order issuance; provide launch vehicles and launch services at various government, commercial, and foreign ranges worldwide for future spacelift missions; provide specific studies and analysis as defined in the Delivery Order Mission Requirements Document (MRD); develop an Interface Control Document with the satellite/payload provider; and provide program management required to plan, execute, and control the program to satisfy requirements outlined in the TRD/MRD. The RSS contractor is required to have off-the-shelf designs for the Spacelift Vehicle. The launch vehicle cannot use Government Minuteman or Peacekeeper motors as part of the spacelift vehicle.

3.2 Program Management: The Air Force Space and Missile Systems Center Detachment 12 (SMC Det 12) Rocket Systems Launch Program (RSLP) is responsible for the management of this program. The Procuring Contracting Officer (PCO), SMC Det 12/ PK, provides contractual management.

4.0 COMPLIANCE DOCUMENTS

Offeror shall comply with these documents:

4.1 RSS Technical Requirements Document

All missions will comply with RSS TRDs, FA8818-04-R-0010, Attachments B andC, and the compliance documents contained within. Future Missions will comply with the mission type TRD and a unique MRD for the specific Delivery Order.

4.2 Applicable Range Safety Manual for Each Range

All missions will comply with RCC 319-99 (FTS Hardware), RCC 321-02 (Hazards Analysis), RCC 501-97 (UDS Docs), E/WR 127-1, Navy Op 5, etc., as specified in the MRD for each specific Task Order.

5.0 SYSTEM DEFINITION

5.1 Program Management

The Government is the mission integrator. The offeror should consider the Government a member and contributor to the integrated team. As a member, the Government expects a level of insight commensurate to the level of risk shouldered by the Government. The offeror shall protect sensitive and critical information.

5.2 Systems Engineering

The offeror shall assure Government insight into management of risk, cost, schedule, technical performance, system tradeoffs, and quality of all mission elements (i.e. Logistics, Manufacturing, Quality Control, Testing, Safety, etc.).

5.3 Deliverables

The offeror shall provide the Government sufficient insight into all phases of the mission. Deliverables will be provided as documentation or by less formal means (e.g., meeting, telecon, and e-mail), including: pertinent design information, mission parameters, system design considerations, detailed performance assessment, and risk evaluation. The Spacelift Vehicle to Satellite/Payload Interface Control Document (ICD) shall be written by the offeror and presented to the Government for coordination and signature. The offeror shall demonstrate compliance to all applicable safety requirements and shall identify any areas of concern relating to personnel and property safety. The offeror shall provide a list of data generated in support of the mission and provide for government access to the data. The offeror shall provide mission/system status throughout, development, fabrication, integration, testing, and launch.

6.0 REFERENCE DOCUMENTS

A list of reference documents will provided with the MRD for each Task Order.

Responsive Small Spacelift (RSS)

RFP FA8818-04-R-0010
Attachment 2

Mission I (Ground Launched)

TECHNICAL REQUIREMENTS DOCUMENT

DRAFT

25 June 2004

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1.0 SCOPE

1.1 Objective

The Government's objective is to provide a small, responsive launch capability to place small satellites into orbit.

1.2 Overview

This document defines performance requirements for a Responsive Small Spacelift (RSS) Vehicle for placing small spacecraft into orbit. This system should be able to support missions within 12 months of contact initiation (6 months if the enhancement is exercised) to a variety of orbits. Mission orbits are defined for the purpose of establishing the throw-weight requirements. A high inclination orbit and a low inclination orbit are specified reflecting the Governments desire to have a flexible launch vehicle capable of meeting a variety of payload and orbit requirements. Payload definition and detailed mission requirements will be provided in a Mission Requirements Document (MRD) issued by the Government at the time authorization to proceed is given for each delivery order.

2.0 APPLICABLE DOCUMENTS

2.1 Compliance Documents

The documents listed below shall be complied with to the extent specified in the column entitled "Tailored Application":

Number/Date	Title	Tailored Application
2.1.1 ER/WR 127- 1 31 Oct 1997 Change Pages 23 Oct 2000	Eastern and Western Range, Range Safety Requirements	As Tailored with Range Safety approval
2.1.2 IRIG Standard 106-96	Telemetry Standards	
2.1.3 NASA Std. GEVS-SE, Rev A, dated June 1996	General Environmental Verification Specification for STS & ELV / Payloads, Subsystems and Components	TBD
2.1.4 Mil Std 1540B (USAF) Dated 10 Oct	Military Standard Test Requirements for launch, Upper	As Negotiated

3.0 REQUIREMENTS

3.1 System Description

The RSS Launch Vehicle consists of the Launch Vehicle (LV) and the Ground Segment.

3.1.1 Launch Vehicle

The Contractor shall provide hardware and software to accomplish the following functions:

- Payload interface
- Guidance and control
- Instrumentation and telemetered data
- Airborne range safety functions
- Attitude control after final stage burn out.
- Additional propulsion capability as required

3.1.2 Ground Segment

The Ground Segment shall consist of:

- Contractor furnished Support Equipment consisting of all equipment required to process, integrate, checkout, and launch the LV.

- Launch Facilities furnished by the Government. Modifications, if necessary to support the RSS vehicle, shall be furnished by the Contractor.

3.2 Characteristics

3.2.1 Performance

3.2.1.1 Throw-weight to Orbit

The Launch System shall be capable of placing spacecraft into a variety of orbital inclinations, eccentricities, and altitudes. The two missions below encapsulate specific throw-weights to satisfy proposal requirements to meet this mission.

Orbit A

Inclination:	sun synchronous
Altitude:	400 nmi X 400 nmi
Throw-weight:	500 lbs minimum

Orbit B

Inclination:	28.5 deg
Altitude:	100 nmi X 100 nmi
Throw-weight:	1000 lbs minimum

Sufficient performance margins shall be included to provide a .997 (3-sigma) probability of achieving the required orbit when all potential sources of dispersions are accounted for. The LV shall provide the capability of accommodating lower payload weights.

3.2.1.2 Insertion Accuracy (3-sigma)

Maximum dispersions of the payload orbit after deployment for Orbit A and the specified payload weights shall be within $\pm$10 nmi altitude for insertion apse, $\pm$40 nmi non-insertion apse, and $\pm$0.2 deg inclination. (See Appendix A for enhanced capability option).

3.2.1.3 Attitude Control (3-sigma)

The Launch Vehicle shall control its attitude at the time of payload deployments to $\pm$ 1 degree of the desired attitude with drift rates less than 1-deg/sec. Tip-off rates of the payload shall be limited to 5 deg/sec.

3.2.1.4 Collision/Contamination Avoidance Maneuver

The Launch Vehicle shall provide the capability of performing a collision avoidance maneuver to minimize payload contamination and preclude recontact between the deployed payloads and the launch vehicle.

3.2.2 Payload Requirements

The Launch System shall be designed to accommodate a variety of payload sizes, shapes and interfaces. The payload may consist of a single spacecraft or multiple spacecraft. Additional hardware required to accommodate multiple payloads will be the responsibility of the government, in accordance with the Interface Control Document (ICD).

3.2.2.1 Mechanical

3.2.2.1.1 Envelope
The Launch Vehicle shall provide a fairing that accommodates a cylindrical payload envelope of at least 40 inches in diameter and 60 inches long.

3.2.2.1.2 Access
The Launch System shall provide access to the payload after fairing mate without removing the fairing or breaking electrical connections. The minimum opening size shall be 100 square inches. Access size and location shall be defined in the ICD. (See Appendix A for enhanced capability option).

3.2.2.1.3 Interface
The Launch System shall provide a non-separating structural interface on which to mount the payload assembly. (See Appendix for enhanced capability option).

3.2.2.1.4 Mass Properties
The Launch System shall accommodate payload weights up 1500 lbs with a center-of-gravity up to 30” forward of the interface and a lateral offset of up to 1 inch.

3.2.2.1.5 Structural Characteristics
The Launch System shall accommodate payloads with a first mode natural frequency of at least 11 Hz.

3.2.2.2 Electrical

3.2.2.2.1 Ordnance Discretes
The Launch System shall provide the following capabilities based on 1.5 ohm payload loads:

Quantity:	Up to 16 circuits
Minimum current:	5 amps
Timing accuracy:	10 millisec
Minimum Duration:	35 millisec
Simultaneity:	Up to 8 discretes with a tolerance of 1 millisec

The circuits shall also be capable of providing 28 volts $\pm$ 4 volts to a high impedance load.

3.2.2.2.2 Telemetry

The Launch System shall provide a bit rate of at least 16 Kbps for payload use with flexibility to support a variety of channel/bit rate requirements, and provide signal conditioning, PCM formatting (programmable), and data transmission. Up to 24 channels shall be provided. The number of channels, sample rates, etc will be defined in the Mission Requirements Document. (See Appendix for enhanced capability option).

3.2.2.2.3 Command, Control, and Monitor

The Launch System shall provide up to 24 umbilical circuits to the payload until launch. The circuits shall include ground power conditioned to 28±4 Vdc and current limited to 5 amperes.

3.2.2.3 Environments

The Launch System shall provide payload flight environments not to exceed the following per the compliance documents (paragraph 2.1):

Acoustic	TBS
Shock	TBS
Vibration	TBS
Transient loads	TBS
Steady state acceleration	TBS

3.2.2.3.1 Thermal

The Launch System shall provide aerothermal protection to the payload prior to launch and during ascent. The internal wall temperature of the fairing shall be limited to 200 deg F in the cylindrical portion during ascent. The fairing shall be retained until aeroheating rates are below 0.1 BTU/sq-ft/sec. During ground processing prior to launch, the spacecraft temperature shall be maintained within 60 to 120 deg F neglecting internal heating sources from the payload. Provisions shall be made to facilitate the implementation of conditioned air if required. (See Appendix for enhanced capability option).

3.2.2.3.2 Contamination

The Launch System shall maintain the payload in a Class 100,000 environment at all times with no condensation forming on payload surfaces. Inner surfaces of the fairing and payload deck shall be cleaned so that they are Visibly Clean, Level II. Provisions shall be made to facilitate the implementation of a continuous clean dry nitrogen purge. (See Appendix for enhanced capability option).

3.2.2.3.3 Plume Effects

The launch Vehicle shall minimize plume effects from all propulsion sources in terms of forces applied to the spacecraft after deployment and contamination prior to and after deployment.

3.2.3 Telemetry and Instrumentation

The Launch System shall collect and transmit sufficient data during pre-launch and in-flight to assess status, performance, and environments; to meet all Range Safety requirements per Reference 2.1.1; and to provide diagnostics in the event of anomalous performance.

3.2.3.1 Navigation Data

The Launch System shall provide navigation data in accordance with Paragraph 2.1.1 requirements.

3.2.3.2 Telemetry Characteristics

The Launch System shall provide pulse code modulation (PCM) telemetry in accordance with Paragraph 2.1.2. It shall provide a total bit rate of at least 750 Kbps. (See Appendix for enhanced capability option). The telemetry system shall use and provide flexibility in allocating channel bandwidths. It shall include the capability of storing and delaying transmission of telemetry data if required due to availability and location of receiving stations.

3.2.3.3 Transmitter and Antenna Characteristics

Signal-to-noise margins over 95% of the radiation sphere shall be adequate to achieve a bit error rate no greater than 10^{-6} when transmitting 2100 nmi to a ground station antenna with a gain (G/T) of 15 dB/^{o}K.

3.2.4 Airborne Range Safety Requirements

The Launch System shall include a command destruct system, radar aiding transponder, GPS range safety tracking, and any hardware and/or modifications required for compliance with the applicable portions of Reference 2.1.1

3.2.5 EMI/EMC

3.2.5.1 Emissions

The Launch System shall minimize radiated and conducted emissions that could affect the payload. Specific levels are TBS by the Contractor.

3.2.5.2 Susceptibility

The Launch System shall be capable of operating at any of the identified launch sites without adverse effects from the electromagnetic environments. The Launch System shall also be capable of withstanding EMI radiated and conducted emissions from the payloads. Specific limitations imposed on the payloads are TBS by the Contractor.

3.2.6 Launch Availability

The vehicle shall be capable of launching under 90 percentile (annual) wind conditions from VAFB. All other limitations (excluding weather) shall not preclude launching for more than one hour per 24 hour period.

3.2.7 Mission Reliability

The Launch System shall have a design reliability of meeting all mission requirements greater than 98 percent. Equipment associated with Range Safety shall meet reliability requirements of Paragraph 2.1.1.

3.2.8 Mission Period of Performance

The RSS Launch Vehicle will be capable of providing reliable spacelift 12 months after the mission is placed on contract.

4.0 QUALITY ASSURANCE

4.1 Verification

A verification program shall be conducted to ensure compliance with section 3 of this document and with the specifications developed by the Contractor. Verification shall be demonstrated through test, analysis, similarity, demonstration, or inspection, as defined in paragraph 5.1.

4.2 Development Tests

A development test program shall be conducted to determine flight environments, reduce risks associated with qualifying components to new environments, quantify structural characteristics, demonstrate structural capabilities and mechanical assemblies, and assess interface compatibility among subsystems. The test program shall be structured to account for previously demonstrated flight proven capabilities.

4.3 Qualification Tests

Components shall be qualified (through test or similarity) to show adequate design margins exist over Maximum Predicted Flight (MPF) environments. Dedicated (non-flight) components shall be used for qualification testing in the case of non-developmental items unless waived by the Government.

Software shall be subjected to a qualification test program to demonstrate compliance with requirements and robustness in off-nominal situations.

4.4 System Integration Test

A system integration test shall be performed with a goal of demonstrating all procedures, verifying SE, LV, booster, payload, and facility interfaces. The nature of the test in terms of flight hardware versus test hardware, location, and functions exercised shall be determined by the Contractor consistent with previously demonstrated performance.

4.5 Flight Proof Tests

Flight proof testing shall be conducted for each mission on flight hardware to demonstrate adequate workmanship. Component and system level testing shall be performed.

4.6 Integration Testing

Integration testing shall be performed with each payload to verify interfaces, demonstrate compatibility, and ensure compliance with the Interface Control Drawing (ICD).

5.0 NOTES

5.1 Verification (Paragraph 4.1)

5.1.1 Analysis

Verification by analysis is a process utilizing techniques and tools such as engineering analysis, statistics, computer and hardware simulations, analog modeling, validation of records, etc to verify requirements have been satisfied. It may be used in lieu of or in addition to testing when:

- Rigorous and accurate analysis is possible
- It is more cost effective than test
- Similarity is not applicable
- Inspection is not adequate

5.1.2 Similarity

Verification by similarity is permitted if it can be demonstrated that the article is sufficiently similar or identical in design to hardware that has been qualified to equivalent or more stringent environmental criteria.

5.1.3 Inspection

Verification by inspection may be used when visual examination of the hardware for compliance with workmanship, quality, and dimensional tolerance is sufficient. It may also include review of manufacturing records.

5.1.4 Demonstration

Verification by demonstration may be used when the qualitative determination of an article's properties can be made by observation under actual or simulated use conditions without special equipment or instrumentation.

5.1.5 Test

When an adequate level of confidence cannot be established by other methods of verification, testing shall be used. Testing employs technical means of measuring performance parameters relative to functional, electrical, mechanical, and environmental requirements.

5.2 Contamination Criteria (Paragraph 3.2.2.3.2)

5.1.1 Class 100,000

Class 100,000 is an index of measured particle size in microns, where 100,000 particles are allowed in a cubic foot of ambient environmental space. Particle size is limited to 0.5 microns or less, except 700 particles are permitted in the range from 0.5 to 5.0 microns.

5.1.2 Visibly Clean, Level II

Requires visual inspection from a distance of 2 to 4 feet with incident light of an intensity of 50 foot candles to verify the absence of all particulate and nonparticulate matter visible to the normal unaided eye. Particulate is identified as matter of miniature size with observable length, width, and thickness. Nonparticulate is film matter without definite dimensions.

APPENDIX A

ENHANCED CAPABILITY OPTIONS

This Appendix defines performance requirements for Enhanced capability Options to provide enhanced capabilities corresponding to CLIN __ in Section B.

A-1 Separation System (Paragraph 3.2.2.1.3)
The Launch System shall include a payload separation system that imparts a separation velocity of 3 ft/sec to the primary payload with tip-off rates less than 5 degrees per second. Constraints on payload characteristics to meet these requirements are TBS.

A-2 Insertion Accuracy (3-sigma) (Paragraph 3.1.2.2)
The Launch System shall provide a spacecraft orbit within $\pm$10 nmi in altitude and $\pm$0.1 deg inclination of the required orbit.

A-3 Conditioned Air (Paragraph 3.2.2.3.1)
The Launch System shall provide conditioned air to the payload at the launch pad. Temperature, humidity, and cleanliness shall be controlled.

A-4 Nitrogen Purge (Paragraph 3.2.2.3.2)
The Launch System shall provide a continuous clean dry nitrogen purge to the payload inside the fairing throughout processing up until launch.

A-5 Access Panel (Paragraph 3.2.2.1.2)
The Launch System shall provide a second access panel to the payload. Location shall be defined by the Government on a mission-by-mission basis.

A-6 Enhanced Telemetry (Paragraph 3.2.3.2)
The Launch Vehicle shall provide additional telemetry capability by increasing the total bit rate available to 2 Mbps.

A-7 Enhanced Contamination Control (Paragraph 3.2.2.3.2)
The Launch System shall include enhanced measures to minimize payload contamination:

(1) Use of out gassing materials, particularly on the payload fairing internal surfaces and other surfaces within the fairing shall comply with the following requirement: total mass loss (TML) of less than 1.0 percent and a collected volatile condensable mass (CVCM) of less than 0.1 percent when tested in accordance with ASTM E595.

Materials that do not meet this requirement may be used if it can be shown that the effects on the payload are not significant compared to the total environment when using materials that meet the standard.

(2) Integration and testing shall be conducted in a Class 10,000 clean room or better environment, as defined in Federal Standard 209, in which the air shall have a maximum hydrocarbon content of 15 ppm or less. Humidity shall be maintained between 35 to 60 percent.

(3) After fairing installation, air supplied to the fairing volume shall have the quality equivalent to air filtered with a HEPA filter and shall have a maximum hydrocarbon content of 15 ppm. Humidity shall be maintained between 35 to 60 percent.

(4) Launch Vehicle surfaces interfacing with the payload envelope shall be cleaned to Visibly Clean Plus Ultraviolet cleanliness criteria defined as visibly clean when inspected:

(a) with normal vision 6-18 inches from the surface with 100 foot candle illuminance on the surface.

(b) with the surface illuminated by a black light (3200-3800 angstroms)

A-8 Launch Pad Environmental Control (Paragraph 3.1.2)

The Ground Segment shall provide environmental protection and access platforms to maintain the booster within required operating limits and support launch pad operations.

A-9 Launch Mission Acceleration (Paragraph 3.1.2)

The period of performance will be shortened to 6 months from mission concept to launch.

Responsive Small Spacelift (RSS)

RFP FA8818-04-R-0010
Attachment 3

Mission 2 (Air Launched)

TECHNICAL REQUIREMENTS DOCUMENT

DRAFT

25 June 2004

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1.0 SCOPE

1.1 Objective

The Government's objective is to provide a small, responsive launch capability to place small satellites into orbit.

1.2 Overview

This document defines performance requirements for a Responsive Small Spacelift (RSS) Vehicle for placing small spacecraft into orbit. This system should be able to support missions within 18 months of contact initiation (12 months if the enhancement is exercised) to a variety of orbits. Mission orbits are defined for the purpose of establishing the throw-weight requirements. A high inclination orbit and a low inclination orbit are specified reflecting the Governments desire to have a flexible launch vehicle capable of meeting a variety of payload and orbit requirements. Payload definition and detailed mission requirements will be provided in a Mission Requirements Document (MRD) issued by the Government at the time authorization to proceed is given for each delivery order.

2.0 APPLICABLE DOCUMENTS

2.1 Compliance Documents

The documents listed below shall be complied with to the extent specified in the column entitled "Tailored Application":

Number/Date	**Title**	**Tailored Application**
2.1.1 ER/WR 127- 1 31 Oct 1997 Change Pages 23 Oct 2000	Eastern and Western Range, Range Safety Requirements	As Tailored with Range Safety approval
2.1.2 IRIG Standard 106-96	Telemetry Standards	
2.1.3 NASA Std. GEVS-SE, Rev A, dated June 1996	General Environmental Verification Specification for STS & ELV / Payloads, Subsystems and Components	TBD
2.1.4 Mil Std 1540B	Military Standard Test	As Negotiated

(USAF) Dated 10 Oct 1982	Requirements for launch, Upper Stage, and Space Vehicles

3.0 REQUIREMENTS

3.1 System Description

The RSS Launch Vehicle consists of the Launch Vehicle (LV), carrier aircraft (first stage), and the Ground Segment.

3.1.1 Launch Vehicle

The Contractor shall provide hardware and software to accomplish the following functions:

- Payload interface
- Guidance and control
- Instrumentation and telemetered data
- Airborne range safety functions
- Attitude control after final stage burn out.
- Additional propulsion capability as required

3.1.2 Ground Segment

The Ground Segment shall consist of:

- Contractor furnished Support Equipment consisting of all equipment required to process, integrate, checkout, and launch the LV.

- Launch Facilities furnished by the Government. Modifications, if necessary to support the RSS vehicle, shall be furnished by the Contractor.

3.2 Characteristics

3.2.1 Performance

3.2.1.1 Throw-weight to Orbit

The Launch System shall be capable of placing spacecraft into a variety of orbital inclinations, eccentricities, and altitudes. . The two missions below encapsulate specific throw-weights to satisfy proposal requirements to meet this mission.

Orbit A

Inclination:	sun synchronous
Altitude:	150 nmi X 150 nmi
Throw-weight:	200 lbs minimum

Orbit B

Inclination:	28.5 deg
Altitude:	100 nmi X 100 nmi
Throw-weight:	300 lbs minimum

Sufficient performance margins shall be included to provide a .997 (3-sigma) probability of achieving the required orbit when all potential sources of dispersions are accounted for. The LV shall provide the capability of accommodating lower payload weights.

3.2.1.2 Insertion Accuracy (3-sigma)

Maximum dispersions of the payload orbit after deployment for Orbit A and the specified payload weights shall be within ±10 nmi altitude for insertion apse, ±40 nmi non-insertion apse, and ±0.2 deg inclination. (See Appendix A for enhanced capability option).

3.2.1.3 Attitude Control (3-sigma)

The Launch Vehicle shall control its attitude at the time of payload deployments to ± 1 degree of the desired attitude with drift rates less than 1-deg/sec. Tip-off rates of the payload shall be limited to 5 deg/sec.

3.2.1.4 Collision/Contamination Avoidance Maneuver

The Launch Vehicle shall provide the capability of performing a collision avoidance maneuver to minimize payload contamination and preclude recontact between the deployed payloads and the launch vehicle.

3.2.2 Payload Requirements

The Launch System shall be designed to accommodate a variety of payload sizes, shapes and interfaces. The payload may consist of a single spacecraft or multiple spacecraft. Additional hardware required to accommodate multiple payloads will be the responsibility of the government, in accordance with the Interface Control Document (ICD).

3.2.2.1 Mechanical

3.2.2.1.1 Envelope
The Launch Vehicle shall provide a fairing that accommodates a cylindrical payload envelope of at least 30 inches in diameter and 36 inches long.

3.2.2.1.2 Access
The Launch System shall provide access to the payload after fairing mate without removing the fairing or breaking electrical connections. The minimum opening size shall be 100 square inches. Access size and location shall be defined in the ICD. (See Appendix A for enhanced capability option).

3.2.2.1.3 Interface
The Launch System shall provide a non-separating structural interface on which to mount the payload assembly. (See Appendix for enhanced capability option).

3.2.2.1.4 Mass Properties
The Launch System shall be designed to accommodate payload weights up 500 lbs with a center-of-gravity up to 20" forward of the interface and a lateral offset of up to 1 inch.

3.2.2.1.5 Structural Characteristics
The Launch System shall accommodate payloads with a first mode natural frequency of at least 11 Hz.

3.2.2.2 Electrical

3.2.2.2.1 Ordnance Discretes
The Launch System shall provide the following capabilities based on 1.5 ohm payload loads:

Quantity:	Up to 16 circuits
Minimum current:	5 amps
Timing accuracy:	10 millisec
Minimum Duration:	35 millisec
Simultaneity:	Up to 8 discretes with a tolerance of 1 millisec

The circuits shall also be capable of providing 28 volts $\pm$ 4 volts to a high impedance load.

3.2.2.2.2 Telemetry

The Launch System shall provide a bit rate of at least 16 Kbps for payload use with flexibility to support a variety of channel/bit rate requirements, and provide signal conditioning, PCM formatting (programmable), and data transmission. Up to 24 channels shall be provided. The number of channels, sample rates, etc will be defined in the Mission Requirements Document. (See Appendix for enhanced capability option).

3.2.2.2.3 Command, Control, and Monitor

The Launch System shall provide up to 24 umbilical circuits to the payload until launch. The circuits shall include ground power conditioned to 28±4 Vdc and current limited to 5 amperes.

3.2.2.3 Environments

The Launch System shall provide payload flight environments not to exceed the following per the compliance documents (paragraph 2.1):

Acoustic	TBS
Shock	TBS
Vibration	TBS
Transient loads	TBS
Steady state acceleration	TBS

3.2.2.3.1 Thermal

The Launch System shall provide aerothermal protection to the payload prior to launch and during ascent. The internal wall temperature of the fairing shall be limited to 200 deg F in the cylindrical portion during ascent. The fairing shall be retained until aeroheating rates are below 0.1 BTU/sq-ft/sec. During ground processing prior to launch, the spacecraft temperature shall be maintained within 60 to 120 deg F neglecting internal heating sources from the payload. Provisions shall be made to facilitate the implementation of conditioned air if required. (See Appendix for enhanced capability option).

3.2.2.3.2 Contamination

The Launch System shall maintain the payload in a Class 100,000 environment at all times with no condensation forming on payload surfaces. Inner surfaces of the fairing and payload deck shall be cleaned so that they are Visibly Clean, Level II. Provisions shall be made to facilitate the implementation of a continuous clean dry nitrogen purge. (See Appendix for enhanced capability option).

3.2.2.3.3 Plume Effects

The launch Vehicle shall minimize plume effects from all propulsion sources in terms of forces applied to the spacecraft after deployment and contamination prior to and after deployment.

3.2.3 Telemetry and Instrumentation

The Launch System shall collect and transmit sufficient data during pre-launch and in-flight to assess status, performance, and environments; to meet all Range Safety requirements per Reference 2.1.1; and to provide diagnostics in the event of anomalous performance.

3.2.3.1 Navigation Data

The Launch System shall provide navigation data in accordance with Paragraph 2.1.1 requirements.

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The Launch System shall provide pulse code modulation (PCM) telemetry in accordance with Paragraph 2.1.2. It shall provide a total bit rate of at least 750 Kbps. (See Appendix for enhanced capability option). The telemetry system shall use and provide flexibility in allocating channel bandwidths. It shall include the capability of storing and delaying transmission of telemetry data if required due to availability and location of receiving stations.

3.2.3.3 Transmitter and Antenna Characteristics

Signal-to-noise margins over 95% of the radiation sphere shall be adequate to achieve a bit error rate no greater than 10^{-6} when transmitting 2100 nmi to a ground station antenna with a gain (G/T) of 15 dB/^{o}K.

3.2.4 Airborne Range Safety Requirements

The Launch System shall include a command destruct system, radar aiding transponder, GPS range safety tracking, and any hardware and/or modifications required for compliance with the applicable portions of Reference 2.1.1

3.2.5 EMI/EMC

3.2.5.1 Emissions

The Launch System shall minimize radiated and conducted emissions that could affect the payload. Specific levels are TBS by the Contractor.

3.2.5.2 Susceptibility

The Launch System shall be capable of operating at any of the identified launch sites without adverse effects from the electromagnetic environments. The Launch System shall also be capable of withstanding EMI radiated and conducted emissions from the payloads. Specific limitations imposed on the payloads are TBS by the Contractor.

3.2.6 Launch Availability

The vehicle shall be capable of launching under 90 percentile (annual) wind conditions from VAFB. All other limitations (excluding weather) shall not preclude launching for more than one hour per 24 hour period.

3.2.7 Mission Reliability

The Launch System shall have a design reliability of meeting all mission requirements greater than 98 percent. Equipment associated with Range Safety shall meet reliability requirements of Paragraph 2.1.1.

3.2.8 Mission Period of Performance

The RSS Launch Vehicle will be capable of providing reliable spacelift 18 months after the mission is placed on contract.

4.0 QUALITY ASSURANCE

4.1 Verification

A verification program shall be conducted to ensure compliance with section 3 of this document and with the specifications developed by the Contractor. Verification shall be demonstrated through test, analysis, similarity, demonstration, or inspection, as defined in paragraph 5.1.

4.2 Development Tests

A development test program shall be conducted to determine flight environments, reduce risks associated with qualifying components to new environments, quantify structural characteristics, demonstrate structural capabilities and mechanical assemblies, and assess interface compatibility among subsystems. The test program shall be structured to account for previously demonstrated flight proven capabilities.

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Components shall be qualified (through test or similarity) to show adequate design margins exist over Maximum Predicted Flight (MPF) environments. Dedicated (non-flight) components shall be used for qualification testing in the case of non-developmental items unless waived by the Government.

Software shall be subjected to a qualification test program to demonstrate compliance with requirements and robustness in off-nominal situations.

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A system integration test shall be performed with a goal of demonstrating all procedures, verifying SE, LV, booster, payload, and facility interfaces. The nature of the test in terms of flight hardware versus test hardware, location, and functions exercised shall be determined by the Contractor consistent with previously demonstrated performance.

4.5 Flight Proof Tests

Flight proof testing shall be conducted for each mission on flight hardware to demonstrate adequate workmanship. Component and system level testing shall be performed.

4.6 Integration Testing

Integration testing shall be performed with each payload to verify interfaces, demonstrate compatibility, and ensure compliance with the Interface Control Drawing (ICD).

5.0 NOTES

5.1 Verification (Paragraph 4.1)

5.1.1 Analysis

Verification by analysis is a process utilizing techniques and tools such as engineering analysis, statistics, computer and hardware simulations, analog modeling, validation of records, etc to verify requirements have been satisfied. It may be used in lieu of or in addition to testing when:

- Rigorous and accurate analysis is possible
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Verification by similarity is permitted if it can be demonstrated that the article is sufficiently similar or identical in design to hardware that has been qualified to equivalent or more stringent environmental criteria.

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Verification by demonstration may be used when the qualitative determination of an article's properties can be made by observation under actual or simulated use conditions without special equipment or instrumentation.

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When an adequate level of confidence cannot be established by other methods of verification, testing shall be used. Testing employs technical means of measuring performance parameters relative to functional, electrical, mechanical, and environmental requirements.

5.2 Contamination Criteria (Paragraph 3.2.2.3.2)

5.1.1 Class 100,000

Class 100,000 is an index of measured particle size in microns, where 100,000 particles are allowed in a cubic foot of ambient environmental space. Particle size is limited to 0.5 microns or less, except 700 particles are permitted in the range from 0.5 to 5.0 microns.

5.1.2 Visibly Clean, Level II

Requires visual inspection from a distance of 2 to 4 feet with incident light of an intensity of 50 foot candles to verify the absence of all particulate and nonparticulate matter visible to the normal unaided eye. Particulate is identified as matter of miniature size with observable length, width, and thickness. Nonparticulate is film matter without definite dimensions.

APPENDIX A

ENHANCED CAPABILITY OPTIONS

This Appendix defines performance requirements for Enhanced capability Options to provide enhanced capabilities corresponding to CLIN __ in Section B.

A-1 Separation System (Paragraph 3.2.2.1.3)
The Launch System shall include a payload separation system that imparts a separation velocity of 3 ft/sec to the primary payload with tip-off rates less than 5 degrees per second. Constraints on payload characteristics to meet these requirements are TBS.

A-2 Insertion Accuracy (3-sigma) (Paragraph 3.1.2.2)
The Launch System shall provide a spacecraft orbit within ±10 nmi in altitude and ±0.1 deg inclination of the required orbit.

A-3 Conditioned Air (Paragraph 3.2.2.3.1)
The Launch System shall provide conditioned air to the payload at the launch pad. Temperature, humidity, and cleanliness shall be controlled.

A-4 Nitrogen Purge (Paragraph 3.2.2.3.2)
The Launch System shall provide a continuous clean dry nitrogen purge to the payload inside the fairing throughout processing up until launch.

A-5 Access Panel (Paragraph 3.2.2.1.2)
The Launch System shall provide a second access panel to the payload. Location shall be defined by the Government on a mission-by-mission basis.

A-6 Enhanced Telemetry (Paragraph 3.2.3.2)
The Launch Vehicle shall provide additional telemetry capability by increasing the total bit rate available to 2 Mbps.

A-7 Enhanced Contamination Control (Paragraph 3.2.2.3.2)
The Launch System shall include enhanced measures to minimize payload contamination:

(1) Use of out gassing materials, particularly on the payload fairing internal surfaces and other surfaces within the fairing shall comply with the following requirement: total mass loss (TML) of less than 1.0 percent and a collected volatile condensable mass (CVCM) of less than 0.1 percent when tested in accordance with ASTM E595.

Materials that do not meet this requirement may be used if it can be shown that the effects on the payload are not significant compared to the total environment when using materials that meet the standard.

(2) Integration and testing shall be conducted in a Class 10,000 clean room or better environment, as defined in Federal Standard 209, in which the air shall have a maximum hydrocarbon content of 15 ppm or less. Humidity shall be maintained between 35 to 60 percent.

(3) After fairing installation, air supplied to the fairing volume shall have the quality equivalent to air filtered with a HEPA filter and shall have a maximum hydrocarbon content of 15 ppm. Humidity shall be maintained between 35 to 60 percent.

(4) Launch Vehicle surfaces interfacing with the payload envelope shall be cleaned to Visibly Clean Plus Ultraviolet cleanliness criteria defined as visibly clean when inspected:

(a) with normal vision 6-18 inches from the surface with 100 foot candle illuminance on the surface.

(b) with the surface illuminated by a black light (3200-3800 angstroms)

A-8 Launch Pad Environmental Control (Paragraph 3.1.2)

The Ground Segment shall provide environmental protection and access platforms to maintain the booster within required operating limits and support launch pad operations.

A-9 Launch Mission Acceleration (Paragraph 3.1.2)

The period of performance will be shortened to 12 months from mission concept to launch.

DRAFT

RSS Sample Mission 1
Mission Requirements Document
FA8818-04-R-0010
Delivery Order 0001

25 June 2004

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1.0 INTRODUCTION

1.1 OVERVIEW

This document provides the mission requirements for the Responsive Small Spacelift (RSS) launch of a Space Test Program satellite payload. The requirements are enveloped in this document and the Mission Type I TRD. The US Air Force, Space and Missile System Center (SMC) Det 12/RP, Rocket Systems Launch Program (RSLP) will provide the launch vehicle and launch services for the spacelift mission in coordination with the SMC Det 12/ST, Space Test Program (STP). The STP will be the RSLP's customer and will be responsible for coordination of space vehicle activities. The mission will use a space launch vehicle configuration procured under the RSS contract. The launch will be conducted from Vandenberg Air Force Base (VAFB), California. The current scheduled launch date for this mission is in November 2005 with a 3-month launch window.

1.2 SCOPE

The purpose of this document is to serve as the controlling source and authority for the RSS Sample Mission 1 requirements. In addition to specifying mission requirements, this Mission Requirements Document (MRD) will:

a) Identify roles, responsibilities and interfaces among the various contractors and Government agencies supporting the mission.

b) Document data provided by the agencies furnishing the Space Vehicle (SV) to be used by the RSS contractor in developing the Launch Vehicle (LV) configuration, integrating the space vehicle, targeting the launch vehicle, processing the flight hardware, and conducting the mission.

c) Identify constraints and environments the space vehicle must meet.

d) Identify test/analysis requirements to verify interfaces between the space vehicle and launch vehicle as well as verify the required space vehicle characteristics.

This MRD will be maintained by RSLP. In many cases, the detailed requirements and data will be specified in other documentation, which will be referenced herein. This includes documents such as the Interface Control Documents (ICDs), which identify detailed space vehicle interface requirements, and the range requirements documentation developed in accordance with the Universal Documentation System (UDS). Once all coordinating parties have signed the SC to LV ICD, it will supercede this MRD. The RSS contract supercedes all documents and establishes the scope of this mission.

1.3 MISSION OBJECTIVES

The primary goal of this RSS mission is to launch a satellite into the desired orbit. Specific objectives for the boost and insertion portion of the mission are as follows:

Insertion Orbit: Deliver the space vehicle to the orbit specified in paragraph 5.1 within the accuracy specified in paragraph 5.3.

Collision/Contamination Avoidance Maneuver (C/CAM): Perform a C/CAM as necessary to protect the space vehicle following the separation event.

Environments: Provide a boost environment that does not exceed the levels to be defined in the space vehicle to launch vehicle ICD.

Telemetry: Telemeter navigation, attitude, environments and space vehicle data to verify mission requirements and post flight evaluation.

1.4 ROLES AND RESPONSIBILITIES

The roles and responsibilities of the organizations supporting this mission are as follows:

Space Test Program: The STP, located at Kirtland AFB, NM, is responsible for space vehicle integration with the launch vehicle, and acts as the single point-of-contact between the SV and RSLP.

Aerospace: The Aerospace Corporation provides technical oversight for the STP.

Space Vehicle Contractor: Space Vehicle Contractor will design and build the SV. Space Vehicle Contractor is also responsible for all SV Electrical Ground Support Equipment (EGSE), all SV Mechanical Ground Support Equipment (MGSE) required for test and integration prior to mechanical mate with launch vehicle, and all SV MGSE making direct mechanical contact with the SV during SV/LV mechanical mating operations (e.g., adapters, protective covers).

Rocket Systems Launch Program: The RSLP, located at Kirtland AFB, NM, is responsible for the launch vehicle including range support, down range telemetry collection, launch vehicle integration, space vehicle interface and mating, and launch services.

1st Aerospace Test Squadron (1 ASTS): Air Force VAFB office responsible for test support at VAFB. (Note: This organization was formerly designated SMC Det 9, now is part of 30 SW)

Northrop Grumman: Provides Systems Engineering and Mission Assurance support and acts as a Technical Advisor to RSLP and 1 ASTS.

RSS Launch Vehicle Contractor: Is responsible for launch vehicle design and integration, space vehicle interface and mating, and mission planning. The RSS contractor is also responsible for launch of the space launch vehicle under contract to RSLP. The RSS contractor shall procure payload and booster processing facilities.

1.4.1 PROCESSING FACILITY

The RSS contractor will provide facilities for booster processing and payload integration with the booster. Launch facilities and payload processing facilities are the responsibility of TBS.

2.0 LAUNCH VEHICLE CONFIGURATION

The launch vehicle shall be an RSS Space Launch Vehicle configuration compliant with the Technical Requirements Document (TRD) (Reference 1).

All enhanced capabilities (TRD Appendix A) are required as options and should be priced separately. The expected enhanced capabilities for this mission are:

a) Conditioned Air
b) Enhanced Contamination Control
c) Nitrogen Purge
d) Payload Separation System
e) Additional Payload Access Door (one door in addition to baseline vehicle)

A payload isolation system will be designed to deal with any loads problems that occur. The RSS contractor will provide the launch vehicle model, forcing functions and Maximum Predicted Environments (MPE) to the payload isolation contractor in order to develop an initial design for the isolation system should it prove necessary and as a source of independent loads verification to RSLP.

3.0 SPACE VEHICLE CONFIGURATION

3.1 ENVELOPE AND MECHANICAL INTERFACE

This space vehicle shall comply with the payload dynamic envelope requirements specified in the SV to LV ICD. Preliminary requirements will be provided as necessary prior to ICD completion to facilitate spacecraft development. The SV will be attached to the RSS space launch vehicle non-separating interface using an RSS contractor provided payload separation system.

3.2 MASS PROPERTIES

The mass of the space vehicle shall not exceed 770 lbs (350 kg). The SV will comply with the center of mass constraints defined in the SV to LV ICD. For preliminary values, the nominal spacecraft cg shall be within 1 in (2.54 cm) of the LV centerline and no greater than 30 in (76.2 cm) forward of the non-separating payload interface.

3.3 DYNAMIC CHARACTERISTICS

The SV when integrated with the sep system and payload isolation (if implemented) shall be greater than 12 Hz or as otherwise defined in the SV to LV ICD. A Finite Element Model (FEM) of the space vehicle shall be provided to the RSS contractor by the Space Vehicle for use in the preliminary Coupled Loads Analysis (CLA). A test verified model shall be provided for the final CLA.

The SV model will also be provided to the payload isolation contractor in order to develop an initial design for the isolation appliance or as a means to provide RSLP with an independent analysis of loads. If a payload isolation system is determined to be necessary, the spacecraft and payload isolation contractors shall provide a final dynamic model of the total space vehicle assembly to the RSS contractor for controls analysis and to verify the payload isolation contractor's loads analysis.

3.4 ELECTRICAL INTERFACES

Launch Vehicle to Space Vehicle electrical interfaces will be in accordance with the appropriate TRD under the RSS contract.

3.4.1 Separation System Signals

The launch vehicle shall provide the required initiation signals to the spacecraft separation system. A minimum of two loopbacks, one in each separation connector, will be provided to indicate separation of the SV in launch vehicle telemetry. The space vehicle shall be provided up to three loopbacks in the separation system connectors. The three SV loopbacks are in addition to the two loopbacks provided for LV telemetry.

3.4.2 Umbilical Circuits

The launch system shall provide a maximum of 30 twisted shielded pairs (TSP) of 22 AWG (60 wires total) in the LV-to-ground umbilical to the space vehicle prior to launch. The umbilical shall facilitate the capability to remotely control and monitor the space vehicle and charge batteries using EGSE furnished by the SV contractor. The detailed configuration of the ground umbilical circuits shall be defined in the SV to LV ICD.

3.5 THERMAL ENVIRONMENT

The space vehicle shall be maintained within the environment specified in the SV to LV ICD during ground processing up until launch. The typical temperature range will be 74±10 deg F (23±12 deg C). During ascent heating will be minimized by maintaining the peak internal wall temperature of the launch vehicle fairing below 200°F. To reduce heat transfer to the spacecraft a low emissivity coating shall be applied to the inner surface of the fairing. Thermal environment conditioning must be provided to the space vehicle at all times prior to launch with exceptions for small periods of time during transportation and stacking as defined in the SV to LV ICD.

3.6 CONTAMINATION

The space vehicle shall be maintained in a visually clean environment with no condensation forming on space vehicle surfaces. Conditioned air meeting the Class 100,000 specification and a nitrogen purge shall be provided for payload processing and continuously after encapsulation until launch. Inner surfaces of the space vehicle fairing and deck shall be cleaned to Visibly Clean, Level II.

3.7 EMI/EMC

The RSS contractor shall establish maximum radiated and conducted emission levels that the launch vehicle might generate. These levels will be documented in the SV to LV ICD. The space vehicle will incorporate these criteria as well as environments from the applicable launch facility (radars, etc) in their design requirements. The RSS contractor shall also establish maximum levels the space vehicle can conduct or radiate to the launch vehicle. In general, the SV shall not radiate any time after encapsulation in the fairing and until a defined time after separation from the LV after orbital insertion. Any required deviations to this requirement shall be coordinated with the RSS contractor and documented in the SV to LV ICD. The SV provider shall ensure these requirements are met through good design practices and analysis.

3.8 SAFETY DOCUMENTATION

The SV provider shall submit system safety documentation for approval in accordance with EWR 127-1 requirements (or the applicable range safety documentation). Documents shall be submitted through RSLP. A Payload Safety Annex will be provided to the RSS contractor by the SV provider to ensure hazards have been adequately addressed at the system level. Documentation shall include as a minimum:

a) Preliminary Hazards Analysis identifying potential hazards and plans for mitigating them.

b) A System Hazards Analysis Report (SHAR) or equivalent documentation demonstrating that all hazards are identified and controlled in compliance with EWR 127-1 (see above comment).

c) Hazardous procedures.

4.0 VERIFICATION REQUIREMENTS

Verification testing shall be conducted to verify the compatibility of hardware supplied by different contractors/government agencies and to verify certain space vehicle characteristics. Analyses may be used in place of testing upon approval by RSLP.

Launch vehicle top-level test requirements are defined in the following paragraphs. Detailed test requirements will be documented by the RSS contractor as part of the Integrated Test Plan. These requirements will be coordinated with the participating agencies and approved by RSLP. The test procedures prepared by the test conductor shall also be submitted 30 days prior to test for review to ensure compliance with the approved test requirements.

4.1 DESIGN VERIFICATION TESTS

Design verification tests are conducted to establish confidence in compatibility between two or more contractors' hardware. The test conductor shall prepare a test report summarizing the test set up, the results, and any anomalies.

4.1.1 Integrated Mechanical/Structural Analyses and Verification Tests

4.1.1.1 Launch Vehicle/Space Vehicle Mechanical Interface Verification

A mechanical fit check shall be performed to verify ICD mechanical compatibility between the launch vehicle and the payload, including cable routing and connections and any areas where there are potential interference issues. The RSS contractor and the spacecraft provider will provide flight representative hardware to support the fit check. The fit check will be performed at a TBD location.

4.1.1.2 Launch Vehicle/Space Vehicle Coupled Loads Derivation

Finite Element models of the launch vehicle and the spacecraft are required for flight analysis, coupled loads analysis, the design of the payload isolation (if required) and as a means of an independent analysis of the CLA by RSLP. The spacecraft provider shall provide a test-verified model of their spacecraft for the final coupled loads analysis.

4.1.1.3 Spacecraft Structural Integrity

The spacecraft provider will verify that integrated loads derived through the coupled loads analysis described in Paragraph 4.1.1.2 are acceptable for their spacecraft or otherwise design the necessary modifications to meet those loads.

The space vehicle provider will be responsible for all structural tests required on the space vehicle side of the interface to verify this requirement. The required tests will be conducted by the space vehicle using flight representative hardware.

4.1.1.4 Modal Survey

The RSS contractor shall assess the impact of launch vehicle configuration modifications and provide analysis and inputs to RSLP. Based on these inputs, RSLP will determine if a new launch vehicle modal survey test is required. If required, the modal survey shall identify/characterize resonant frequencies, linearity characteristics, damping, and mode shapes of the RSS space launch vehicle avionics structure.

4.1.2 Interface Generated Shock Environments

The shock response spectrum generated by the RSS contractor provided separation system shall not exceed the maximum shock environment specified in the SV to LV ICD. The SV contractor shall conduct pyro-shock characterization test using RSS contractor supplied test hardware in order to verify this requirement. The LV provider shall furnish two sets of separation system hardware to support two SV/LV separation system tests required by the SV provider to validate the interface requirements.

4.1.3 Electrical Verification Tests

4.1.3.1 Launch Vehicle/Space Vehicle Electrical Interface Verification

Testing shall be conducted to verify the electrical interface between the launch vehicle and space vehicle. The test will use flight representative hardware furnished by the RSS contractor and applicable space vehicle components furnished by the space vehicle contractor. The test shall include the complete sequence of all commands issued from the launch vehicle to the space vehicle, and all telemetry sent from the space vehicle to the launch vehicle.

4.1.3.2 Space Vehicle/Launch Site Electrical Compatibility

A design compatibility test to establish high confidence in electrical compatibility of the space vehicle and space vehicle Ground Support Equipment (GSE) with the launch complex shall be performed at the launch site. The space vehicle provider shall prepare the test procedure and conduct the test. The RSS contractor and the Range will support the test as required.

4.2 LAUNCH VERIFICATION TESTS

These tests verify the receipt-through-launch processing in support of each flight. The test conductor for each test shall prepare an Integrated Field Processing Procedure (IFPP). No formal test reports are prepared; however, the RSS contractor shall document all anomalies. The results of the tests are assessed in post-test readiness reviews, and the test team certifies flight readiness.

4.2.1 Launch Vehicle/Space Vehicle Processing

Integrated launch vehicle/space vehicle processing is performed in preparation for emplacement on the booster at the launch site. The RSS contractor shall mate the space vehicle to the launch vehicle with the space vehicle contractor's support. The space vehicle contractor shall furnish certified handling/ground support equipment required to interface from the crane hook (or other GSE) to the space vehicle needed during the horizontal integration process.

4.2.2 Flight Integrated Testing with the Launch Vehicle

Launch vehicle/space vehicle integrated testing will be performed using the flight space vehicle and separation system to verify electrical compatibility and system performance with the launch vehicle front section (FS).

Prior to installing the fairing, as part of the flight integrated testing, an RF compatibility test shall be performed if it is determined that simultaneous launch vehicle/space vehicle RF transmissions will occur.

4.2.3 Space Vehicle SE Installation and Ground System Checkout

The SV contractor will install the required space vehicle Support Equipment (SE) at the launch site in locations to be defined in the SV to LV ICD. The SV contractor will test the installed equipment with support from the RSS contractor and 1 ASTS.

4.2.4 Launch Vehicle/Space Vehicle Emplacement

The SV shall be integrated and encapsulated at a TBD facility, mated with the launch vehicle, then erected on the TBD launch pad. This process will include mechanical mating, spurious voltage checks, and electrical connection.

4.2.5 Space Vehicle Post-Mate Checks

The space vehicle post-mate checks shall include the space vehicle operational assurance tests and a compatibility test of the launch vehicle and space vehicle systems.

4.2.6 Mission Simulation

A mission simulation test shall be performed by the RSS contractor and shall include a simulated countdown exercising range interfaces to verify the operational readiness of the entire Aerospace Vehicle Equipment (AVE) and ground system.

4.2.7 Launch Day Operations

The launch day operations shall include backout, prelaunch checkout, launch countdown, and site shutdown. The RSS contractor shall prepare the countdown manual and procedures. A Mission Constraints Document will be prepared by the RSS contractor and coordinated with RSLP.

5.0 ORBITAL TARGETING REQUIREMENTS

5.1 FLIGHT PROFILE

The launch vehicle will be launched from the selected launch site into an orbit with a 190 nm (350 km) insertion apse, a 190 nm (350 km) non-insertion apse, and 96.85° inclination, based on current mission requirements. There will be one separation event: space vehicle separation from the launch vehicle. The launch vehicle will perform collision avoidance maneuvers as necessary after deployment to preclude re-contact with the space vehicle.

5.2 PLUME EFFECTS

The deployment sequence and thruster actions from the Launch Vehicle Attitude Control System (ACS) shall be performed in a manner to minimize interaction of the plumes with the space vehicle. The RSS contractor shall verify plume effects through analyses.

5.3 ACCURACY

Nominal launch vehicle accuracy requirements as defined in the RSS TRD (Reference 1), as listed below.

Parameter	Accuracy
Insertion Apse	±10 nm (±18.5 km)
Non-Insertion Apse	±40 nm (±92.6 km)
Inclination	±0.2 deg

Accuracy predictions shall be developed by the RSS contractor and documented in the SV to LV ICD as necessary.

5.4 SEPARATION REQUIREMENTS

The space vehicle shall be separated with the launch vehicle X-axis aligned ±3.0° with the velocity vector at the initiation of SV separation. Launch vehicle angular rates at the initiation of SV separation shall be ≤ 2.0 deg/sec. Separation system tip-off shall be predicted based on the separation system configuration and SV mass properties and documented in the SV to LV ICD.

Acronym List

ACS	Attitude Control System
AVE	Aerospace Vehicle Equipment
CG	Center of Gravity
C/CAM	Clearance/Collision Avoidance Maneuver
EMI/EMC	Electromagnetic Interference/Electromagnetic Compatibility
FEM	Finite Element Model
FS	Front Section
ICD	Interface Control Document
LCR	Launch Control Room
LEB	Launch Equipment Building
LEO	Low Earth Orbit
LV	Launch Vehicle
MAB	Missile Assembly Building
MOI	Moment of Inertia
MPE	Maximum Predicted Environment
P/I	Payload Interface
RF	Radio Frequency
SAD	Safe & Arm Device
SE	Support Equipment
SHAR	System Hazards Analysis Report
SLV	Space Launch Vehicle
STP	Space Test Program
SV	Space Vehicle
TBD	To Be Determined
TBR	To Be Reviewed
TBS	To Be Specified
UDS	Universal Documentation System
VAFB	Vandenberg Air Force Base

REFERENCES

Reference 1. Technical Requirements Document, Attachment 2 to Contract F04701-03-D-0204.

Reference 2. RSS space launch vehicle Users Guide, Release 1.0 (March 2002).

Reference 3. EWR 127-1, Eastern Western Range, Range Safety Requirements.

Note: The Basic Contract takes precedence over any of the cited reference documents should a conflict exist.

DRAFT

Sample Mission 2
Mission Requirements Document
FA8818-04-R-0010

25 June 2004

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 OVERVIEW

This document provides the mission requirements for the Responsive Small Spacelift (RSS) launch of a satellite payload. This mission postulates a close inspection satellite similar to the flight proven XSS-10 satellite. The US Air Force, Space and Missile System Center (SMC) Det 12/RP, Rocket Systems Launch Program (RSLP) will provide the launch vehicle and launch services for the spacelift mission in coordination with the satellite customer. The satellite program office will be the RSLP's customer and will be responsible for coordination of space vehicle activities. The mission will use a space launch vehicle configuration procured under the RSS contract. The launch will be conducted from a location approximately 100 nm west of Vandenberg Air Force Base (VAFB), California. The current ILC is TBD.

1.2 SCOPE

The purpose of this document is to serve as the controlling source and authority for the RSS sample mission 2 mission requirements. In addition to specifying mission requirements, this Mission Requirements Document (MRD) will:

a) Identify roles, responsibilities and interfaces among the various contractors and Government agencies supporting the mission.

b) Document data provided by the agencies furnishing the Space Vehicle (SV) to be used by the RSS contractor in developing the Launch Vehicle (LV) configuration, integrating the space vehicle, targeting the launch vehicle, processing the flight hardware, and conducting the mission.

c) Identify constraints and environments the space vehicle must meet.

d) Identify test/analysis requirements to verify interfaces between the space vehicle and launch vehicle as well as verify the required space vehicle characteristics.

This MRD will be maintained by RSLP. In many cases, the detailed requirements and data will be specified in other documentation, which will be referenced herein. This includes documents such as the Interface Control Documents (ICDs), which identify detailed space vehicle interface requirements, and the range requirements documentation developed in accordance with the Universal Documentation System (UDS). Once all coordinating parties have signed the SC to LV ICD, it will supercede this MRD. The RSS contract supercedes all documents and establishes the scope of this mission.

1.3 MISSION OBJECTIVES

The primary goal of the RSS space launch vehicle mission is to launch the sample mission 2 satellite into the desired orbit. Specific objectives for the boost and insertion portion of the mission are as follows:

Insertion Orbit: Deliver the space vehicle to the orbit specified in paragraph 5.1 within the accuracy specified in paragraph 5.3.

Collision/Contamination Avoidance Maneuver (C/CAM): Perform a C/CAM as necessary to protect the space vehicle following the separation event.

Environments: Provide a boost environment that does not exceed the levels to be defined in the space vehicle to launch vehicle ICD.

Telemetry: Telemeter navigation, attitude, environments and space vehicle data to verify mission requirements and post flight evaluation.

1.4 ROLES AND RESPONSIBILITIES

The roles and responsibilities of the organizations supporting the mission are as follows:

Satellite Program Office (SPO): The SPO, located at TBS, is responsible for space vehicle integration with the launch vehicle, and acts as the single point-of-contact between the SV and RSLP.

Space Vehicle Contractor: Space Vehicle Contractor will design and build the sample mission 2 SV. Space Vehicle Contractor is also responsible for all SV Electrical Ground Support Equipment (EGSE), all SV Mechanical Ground Support Equipment (MGSE) required for test and integration prior to mechanical mate with launch vehicle, and all SV MGSE making direct mechanical contact with the SV during SV/LV mechanical mating operations (e.g., adapters, protective covers).

Rocket Systems Launch Program: The RSLP, located at Kirtland AFB, NM, is responsible for the launch vehicle including range support, down range telemetry collection, launch vehicle integration, space vehicle interface and mating, and launch services.

1st Aerospace Test Squadron (1 ASTS): Air Force VAFB office responsible for test support at VAFB. (Note: This organization was formerly designated SMC Det 9, now is part of 30 SW)

Northrop Grumman: Provides Systems Engineering support and acts as a Technical Advisor to RSLP and 1 ASTS.

RSS Launch Vehicle Contractor: Is responsible for launch vehicle design and integration, space vehicle interface and mating, and mission planning. The RSS contractor is also responsible for launch of the space launch vehicle under contract to RSLP. The RSS contractor shall procure payload and booster processing facilities.

1.4.1 PROCESSING FACILITY

The RSS contractor will provide facilities for booster processing and payload integration with the booster. Launch facilities and payload processing facilities are the responsibility of TBS.

2.0 LAUNCH VEHICLE CONFIGURATION

The launch vehicle shall be an RSS Space Launch Vehicle configuration compliant with the Technical Requirements Document (TRD) (Attachment 2/3).

All enhanced capabilities (TRD Appendix A) are required as options and should be priced separately. The expected enhanced capabilities for this mission are:

a) Conditioned Air
b) Enhanced Contamination Control
c) Nitrogen Purge
d) Payload Separation System
e) Additional Payload Access Door (one door in addition to baseline vehicle)

A payload isolation system will be designed to deal with any loads problems that occur. The RSS contractor will provide the launch vehicle model, forcing functions and Maximum Predicted Environments (MPE) to the payload isolation contractor in order to develop an initial design for the isolation system should it prove necessary and as a source of independent loads verification to RSLP.

3.0 SPACE VEHICLE CONFIGURATION

3.1 ENVELOPE AND MECHANICAL INTERFACE

The sample mission 2 space vehicle shall comply with the payload dynamic envelope requirements specified in the SV to LV ICD. Preliminary requirements will be provided as necessary prior to

ICD completion to facilitate spacecraft development. The SV will be attached to the RSS space launch vehicle non-separating interface using an RSS contractor provided payload separation system.

3.2 MASS PROPERTIES

The mass of the sample mission 2 space vehicle shall not exceed 200 lbs (91 kg). The SV will comply with the center of mass constraints defined in the SV to LV ICD. For preliminary values, the nominal spacecraft cg shall be within 1 in (2.54 cm) of the LV centerline and no greater than 20 in (50.8 cm) forward of the non-separating payload interface.

3.3 DYNAMIC CHARACTERISTICS

The sample mission 2 SV when integrated with the sep system and payload isolation (if implemented) shall be greater than 12 Hz or as otherwise defined in the SV to LV ICD. A Finite Element Model (FEM) of the sample mission 2 space vehicle shall be provided to the RSS contractor by the Space Vehicle for use in the preliminary Coupled Loads Analysis (CLA). A test verified model shall be provided for the final CLA.

The SV model will also be provided to the payload isolation contractor in order to develop an initial design for the isolation appliance or as a means to provide RSLP with an independent analysis of loads. If a payload isolation system is determined to be necessary, the spacecraft and payload isolation contractors shall provide a final dynamic model of the total space vehicle assembly to the RSS contractor for controls analysis and to verify the payload isolation contractor's loads analysis.

3.4 ELECTRICAL INTERFACES

Launch Vehicle to Space Vehicle electrical interfaces will be in accordance with the appropriate TRD under the RSS contract.

3.4.1 Separation System Signals

The launch vehicle shall provide the required initiation signals to the spacecraft separation system. A minimum of two loopbacks, one in each separation connector, will be provided to indicate separation of the SV in launch vehicle telemetry. The space vehicle shall be provided up to three loopbacks in the separation system connectors. The three SV loopbacks are in addition to the two loopbacks provided for LV telemetry.

3.4.2 Umbilical Circuits

The launch system shall provide a maximum of 30 twisted shielded pairs (TSP) of 22 AWG (60 wires total) in the LV-to-ground umbilical to the space vehicle prior to launch. The umbilical shall facilitate the capability to remotely control and monitor the space vehicle and charge batteries using EGSE furnished by the SV contractor. The detailed configuration of the ground umbilical circuits shall be defined in the SV to LV ICD.

3.5 THERMAL ENVIRONMENT

The space vehicle shall be maintained within the environment specified in the SV to LV ICD during ground processing up until launch. The typical temperature range will be 74±10 deg F (23±12 deg C). During ascent heating will be minimized by maintaining the peak internal wall temperature of the launch vehicle fairing below 200°F. To reduce heat transfer to the spacecraft a low emissivity coating shall be applied to the inner surface of the fairing. Thermal environment conditioning must be provided to the space vehicle at all times prior to launch with exceptions for small periods of time during transportation and stacking as defined in the SV to LV ICD.

3.6 CONTAMINATION

The space vehicle shall be maintained in a visually clean environment with no condensation forming on space vehicle surfaces. Conditioned air meeting the Class 100,000 specification and a nitrogen purge shall be provided for payload processing and continuously after encapsulation until launch. Inner surfaces of the space vehicle fairing and deck shall be cleaned to Visibly Clean, Level II.

3.7 EMI/EMC

The RSS contractor shall establish maximum radiated and conducted emission levels that the launch vehicle might generate. These levels will be documented in the SV to LV ICD. The space vehicle will incorporate these criteria as well as environments from the applicable launch facility (radars, etc) in their design requirements. The RSS contractor shall also establish maximum levels the space vehicle can conduct or radiate to the launch vehicle. In general, the SV shall not radiate any time after encapsulation in the fairing and until a defined time after separation from the LV after orbital insertion. Any required deviations to this requirement shall be coordinated with the RSS contractor and documented in the SV to LV ICD. The SV provider shall ensure these requirements are met through good design practices and analysis.

3.8 SAFETY DOCUMENTATION

The SV provider shall submit system safety documentation for approval in accordance with EWR 127-1 requirements (or the applicable range safety documentation). Documents shall be submitted through RSLP. A Payload Safety Annex will be provided to the RSS contractor by the

SV provider to ensure hazards have been adequately addressed at the system level. Documentation shall include as a minimum:

a) Preliminary Hazards Analysis identifying potential hazards and plans for mitigating them.

b) A System Hazards Analysis Report (SHAR) or equivalent documentation demonstrating that all hazards are identified and controlled in compliance with EWR 127-1 (see above comment).

c) Hazardous procedures.

4.0 VERIFICATION REQUIREMENTS

Verification testing shall be conducted to verify the compatibility of hardware supplied by different contractors/government agencies and to verify certain space vehicle characteristics. Analyses may be used in place of testing upon approval by RSLP.

Launch vehicle top-level test requirements are defined in the following paragraphs. Detailed test requirements will be documented by the RSS contractor as part of the Integrated Test Plan. These requirements will be coordinated with the participating agencies and approved by RSLP. The test procedures prepared by the test conductor shall also be submitted 30 days prior to test for review to ensure compliance with the approved test requirements.

4.1 DESIGN VERIFICATION TESTS

Design verification tests are conducted to establish confidence in compatibility between two or more contractors' hardware. The test conductor shall prepare a test report summarizing the test set up, the results, and any anomalies.

4.1.1 Integrated Mechanical/Structural Analyses and Verification Tests

4.1.1.1 Launch Vehicle/Space Vehicle Mechanical Interface Verification

A mechanical fit check shall be performed to verify ICD mechanical compatibility between the launch vehicle and the sample mission 2 payload, including cable routing and connections and any areas where there are potential interference issues. The RSS contractor and the spacecraft provider will provide flight representative hardware to support the fit check. The fit check will be performed at a TBD location.

4.1.1.2 Launch Vehicle/Space Vehicle Coupled Loads Derivation

Finite Element models of the launch vehicle and the spacecraft are required for flight analysis, coupled loads analysis, the design of the payload isolation (if required) and as a means of an independent analysis of the CLA by RSLP. The spacecraft provider shall provide a test-verified model of their spacecraft for the final coupled loads analysis.

4.1.1.3 Spacecraft Structural Integrity

The spacecraft provider will verify that integrated loads derived through the coupled loads analysis described in Paragraph 4.1.1.2 are acceptable for their spacecraft or otherwise design the necessary modifications to meet those loads.

The space vehicle provider will be responsible for all structural tests required on the space vehicle side of the interface to verify this requirement. The required tests will be conducted by the space vehicle using flight representative hardware.

4.1.1.4 Modal Survey

The RSS contractor shall assess the impact of launch vehicle configuration modifications and provide analysis and inputs to RSLP. Based on these inputs, RSLP will determine if a new launch vehicle modal survey test is required. If required, the modal survey shall identify/characterize resonant frequencies, linearity characteristics, damping, and mode shapes of the RSS space launch vehicle avionics structure.

4.1.2 Interface Generated Shock Environments

The shock response spectrum generated by the RSS contractor provided separation system shall not exceed the maximum shock environment specified in the SV to LV ICD. The SV contractor shall conduct pyro-shock characterization test using RSS contractor supplied test hardware in order to verify this requirement. The LV provider shall furnish two sets of separation system hardware to support two SV/LV separation system tests required by the SV provider to validate the interface requirements.

4.1.3 Electrical Verification Tests

4.1.3.1 Launch Vehicle/Space Vehicle Electrical Interface Verification

Testing shall be conducted to verify the electrical interface between the launch vehicle and space vehicle. The test will use flight representative hardware furnished by the RSS contractor and applicable space vehicle components furnished by the space vehicle contractor. The test shall include the complete sequence of all commands issued from the launch vehicle to the space vehicle, and all telemetry sent from the space vehicle to the launch vehicle.

4.1.3.2 Space Vehicle/Launch Site Electrical Compatibility

A design compatibility test to establish high confidence in electrical compatibility of the space vehicle and space vehicle Ground Support Equipment (GSE) with the launch complex shall be performed at the launch site. The space vehicle provider shall prepare the test procedure and conduct the test. The RSS contractor and the Range will support the test as required.

4.2 LAUNCH VERIFICATION TESTS

These tests verify the receipt-through-launch processing in support of each flight. The test conductor for each test shall prepare an Integrated Field Processing Procedure (IFPP). No formal test reports are prepared; however, the RSS contractor shall document all anomalies. The results of the tests are assessed in post-test readiness reviews, and the test team certifies flight readiness.

4.2.1 Launch Vehicle/Space Vehicle Processing

Integrated launch vehicle/space vehicle processing is performed in preparation for emplacement on the booster at the launch site. The RSS contractor shall mate the sample mission 2 space vehicle to the launch vehicle with the space vehicle contractor's support. The space vehicle contractor shall furnish certified handling/ground support equipment required to interface from the crane hook (or other GSE) to the space vehicle needed during the horizontal integration process.

4.2.2 Flight Integrated Testing with the Launch Vehicle

Launch vehicle/space vehicle integrated testing will be performed using the flight space vehicle and separation system to verify electrical compatibility and system performance with the launch vehicle front section (FS).

Prior to installing the fairing, as part of the flight integrated testing, an RF compatibility test shall be performed if it is determined that simultaneous launch vehicle/space vehicle RF transmissions will occur.

4.2.3 Space Vehicle SE Installation and Ground System Checkout

The SV contractor will install the required space vehicle Support Equipment (SE) at the launch site in locations to be defined in the SV to LV ICD. The SV contractor will test the installed equipment with support from the RSS contractor and 1 ASTS.

4.2.4 Launch Vehicle/Space Vehicle Emplacement

The SV shall be integrated and encapsulated at a TBD facility, mated with the launch vehicle, then erected on the TBD launch pad. This process will include mechanical mating, spurious voltage checks, and electrical connection.

4.2.5 Space Vehicle Post-Mate Checks

The space vehicle post-mate checks shall include the space vehicle operational assurance tests and a compatibility test of the launch vehicle and space vehicle systems.

4.2.6 Mission Simulation

A mission simulation test shall be performed by the RSS contractor and shall include a simulated countdown exercising range interfaces to verify the operational readiness of the entire Aerospace Vehicle Equipment (AVE) and ground system.

4.2.7 Launch Day Operations

The launch day operations shall include backout, prelaunch checkout, launch countdown, and site shutdown. The RSS contractor shall prepare the countdown manual and procedures. A Mission Constraints Document will be prepared by the RSS contractor and coordinated with RSLP.

5.0 ORBITAL TARGETING REQUIREMENTS

5.1 FLIGHT PROFILE

The launch vehicle will be launched from the selected launch site into an orbit with a 150 nm (276 km) insertion apse, a 150 nm (276 km) non-insertion apse, and 96.85° inclination, based on current sample mission 2 requirements. There will be one separation event: sample mission 2 separation from the launch vehicle. The launch vehicle will perform collision avoidance maneuvers as necessary after deployment to preclude re-contact with the space vehicle.

5.2 PLUME EFFECTS

The deployment sequence and thruster actions from the Launch Vehicle Attitude Control System (ACS) shall be performed in a manner to minimize interaction of the plumes with the space vehicle. The RSS contractor shall verify plume effects through analyses.

5.3 ACCURACY

Nominal launch vehicle accuracy requirements as defined in the RSS TRD (Reference 1), as listed below.

Parameter	Accuracy
Insertion Apse	±10 nm (±18.5 km)
Non-Insertion Apse	±40 nm (±92.6 km)
Inclination	±0.2 deg

Accuracy predictions shall be developed by the RSS contractor and documented in the SV to LV ICD as necessary.

5.4 SEPARATION REQUIREMENTS

The space vehicle shall be separated with the launch vehicle X-axis aligned ±3.0° with the velocity vector at the initiation of SV separation. Launch vehicle angular rates at the initiation of SV separation shall be ≤ 2.0 deg/sec. Separation system tip-off shall be predicted based on the separation system configuration and SV mass properties and documented in the SV to LV ICD.

Acronym List

ACS	Attitude Control System
AVE	Aerospace Vehicle Equipment
CG	Center of Gravity
C/CAM	Clearance/Collision Avoidance Maneuver
EMI/EMC	Electromagnetic Interference/Electromagnetic Compatibility
FEM	Finite Element Model
FS	Front Section
ICD	Interface Control Document
LCR	Launch Control Room
LEB	Launch Equipment Building
LEO	Low Earth Orbit
LV	Launch Vehicle
MAB	Missile Assembly Building
MOI	Moment of Inertia
MPE	Maximum Predicted Environment
P/I	Payload Interface
RF	Radio Frequency
SAD	Safe & Arm Device
SE	Support Equipment
SHAR	System Hazards Analysis Report
SLV	Space Launch Vehicle
SPO	Space Test Program
SV	Space Vehicle
TBD	To Be Determined
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UDS	Universal Documentation System
VAFB	Vandenberg Air Force Base

REFERENCES

Reference 1. Technical Requirements Document, Attachment 2 to Contract F04701-03-D-0204.

Reference 2. RSS space launch vehicle Users Guide, Release 1.0 (March 2002).

Reference 3. EWR 127-1, Eastern Western Range, Range Safety Requirements.

Note: The Basic Contract takes precedence over any of the cited reference documents should a conflict exist.

See separate file on http://eda.ogden.disa.mil

or https://www.nafi.navy.mil for Attachment 6

See separate file on http://eda.ogden.disa.mil

or https://www.nafi.navy.mil for Attachment 7

DRAFT

RSS
Sample Work Breakdown Structure (WBS)
FA8818-04-R-0010

15 Jun 2004

RSS WORK BREAKDOWN STRUCTURE (WBS) LEVELS

1.0 Spacelift Vehicle and Services

- 1.1 Launch Vehicle
  - 1.1.1 Propulsion
  - 1.1.2 Guidance and Control
  - 1.1.3 Shroud (Payload Fairing)
  - 1.1.4 Avionics
  - 1.1.5 Integration, Assembly, Test and Checkout
  - 1.1.6 Orbital Insertion System
  - 1.1.7 Flight Termination System
  - 1.1.8 Telemetry
  - 1.1.9 Umbilical
- 1.2 Design Analysis
  - 1.2.1 Structures
  - 1.2.2 Loads/Environments
  - 1.2.3 Aerodynamics
  - 1.2.4 Thermodynamics
  - 1.2.5 Guidance and Control
  - 1.2.6 Software
  - 1.2.7 Power
  - 1.2.8 Trajectory
  - 1.2.9 EMI/EMC
  - 1.2.10 Telemetry
  - 1.2.11 Post-Flight Analysis
- 1.3 Testing
  - 1.3.1 Component
  - 1.3.2 System
  - 1.3.3 Software
  - 1.3.4 Integration
  - 1.3.5 Field
  - 1.3.6 Pre-Launch
- 1.4 Range Integration
  - 1.4.1 FTS H/W Analysis
  - 1.4.2 Flight hazards Analysis
  - 1.4.3 UDS Documentation
  - 1.4.4 Field Processing
  - 1.4.5 Hazards Operations
  - 1.4.6 ICD
- 1.5 Storage
  - 1.5.1 Planning and Preparation
  - 1.5.2 Storage
  - 1.5.3 Transfer and Transportation
- 1.6 Payload/Satellite Integration
  - 1.6.1 ICD
  - 1.6.2 Interface Testing
  - 1.6.3 Clean Room Operations
  - 1.6.4 Test and Evaluation Support
- 1.7 Support Equipment
  - 1.7.1 Aerospace Support Equipment
  - 1.7.2 Ground Support Equipment
  - 1.7.3 Support and Handling Equipment
- 1.8 Program Support
  - 1.8.1 Design Reviews
  - 1.8.2 Program Reviews
  - 1.8.3 Pre-Ship Review
  - 1.8.4 Pre-launch Reviews
  - 1.8.5 Technical Interchange Meeting
  - 1.8.6 Range Working Groups
  - 1.8.7 Scheduling
  - 1.8.8 Integrated Management Plan

DEFINITIONS

1.0 Spacelift Vehicle and Services – The entire mission from design, build, test and launch the spacelift vehicle to include integrating the payload, range interface, range safety, program management, reviews, etc.

1.1 Launch Vehicle – the launch vehicle for lifting and inserting the payload into orbit

1.1.1 Propulsion – the motor/engine for providing thrust to include the ignition system and staging systems (if requires)

1.1.2 Guidance and Control – the control system for maneuvering the launch vehicle

1.1.3 Shroud (Payload Fairing) – the payload protective shell capable of extraction prior to orbital insertion

1.1.4 Avionics – electronics for flight computer, power, telemetry, sensors, discretes, etc

1.1.5 Integration, Assembly, Test and Checkout – the buildup of the launch vehicle

1.1.6 Orbital Insertion System – attitude control system, propulsion (if required), separation system (if required) and discretes for insertion of the payload into orbit

1.1.7 Flight Termination System – the RCC 319-99 compliant hardware/software that stops all acceleration due to a command from the government range safety

1.1.8 Telemetry – the encoder and transmitter

1.1.9 Umbilical – the power and communication with ground command and control systems

1.2 Design Analysis – the design analysis for the new vehicle or delta analysis for follow-on launches of an existing vehicle

1.2.1 Structures – the analysis of the structural components and the design margins

1.2.2 Loads/Environments – the maximum predicted environments (MPE) for the various components on the launch vehicle (including the payload), the acceptance test levels and qualification test levels per Mil Std 1540B

1.2.3 Aerodynamics – the aerodynamic analysis to include any CFD, wind tunnel, or other analysis to determine the aero coefficients for drag, pressure, etc

1.2.4 Thermodynamics – the analysis of heat loading on the launch vehicle to include the predicted temperature loading on the structure, components and the payload.

1.2.5 Guidance and Control – the guidance and control scheme for maintaining the trajectory, 3 DoF, 6 DoF, control functions, control loops, Monte Carlo runs, etc

1.2.6 Software - the flight code for controlling the launch vehicle and providing control commands, discretes, etc

1.2.7 Power – the ground and flight power sources and margins

1.2.8 Trajectory – an analysis of the flight trajectory and orbital analysis to include Monte Carlo and margins

1.2.9 EMI/EMC – an analysis of all RR radiation sources on and off the launch vehicle and the potential effect/safe guards

1.2.10 Telemetry – the antenna analysis, coverage area, link margins, etc

1.2.11 Post-Flight Analysis – an analysis of the flight data to verify the mission perimeters were met or a report and any anomalies

1.3 Testing

1.3.1 Component – functional and acceptance/qual test to launch environments

1.3.2 System – functional test of the systems in WBS 1.1

1.3.3 Software – unit (routines) and full up software test

1.3.4 Integration – in factory functional and environmental test of the entire launch vehicle functionality in a launch configuration

1.3.5 Field – per-launch testing of the launch vehicle at the launch site prior to actual launch

1.3.6 Pre-Launch - dress rehearsals

1.4 Range Integration

1.4.1 FTS H/W Analysis – FTS system tests require by the range (RCC 319-99)

1.4.2 Flight hazards Analysis – flight hazards analysis to identify potential debris on the test range due to nominal and anomalous flight, probability of flight failure, debris created, debris fly downs, etc., per RCC 321-02

1.4.3 UDS Documentation – inputs to the Program Introduction, Program Requirements Document and OD, with responses to the range provided Statement of Capability, Program Support Plan and Operational Requirements

1.4.4 Field Processing – procedures for processing and launching the launch vehicle

1.4.5 Hazards Operations – field-processing procedures that involve hazards operations per the range instructions

1.4.6 ICD – interface control document to identify physical, software and RF interfaces with the range

1.5 Storage

1.5.1 Planning and Preparation – storage plans and certifications for lifting and moving equipment

1.5.2 Storage – actual storage facilities and equipment

1.5.3 Transfer and Transportation – transportation plan

1.6 Payload/Satellite Integration

1.6.1 ICD – interface control document to identify physical, software and other interfaces with the payload

1.6.2 Interface Testing – test to validate the interfaces

1.6.3 Clean Room Operations – plan to meet the clean room requirements during integration and testing of the payload

1.6.4 Test and Evaluation Support – support of range testing of the payload while on the launch vehicle prior to launch

1.7 Support Equipment

1.7.1 Aerospace Support Equipment – support equipment to checkout the health and status of the launch vehicle prior launch

1.7.2 Ground Support Equipment – all other support equipment required to checkout and maintain the launch vehicle

1.7.3 Handling Equipment – equipment require to transport the launch vehicle

1.8 Program Support

1.8.1 Design Reviews – reviews to identify the design, built, test and launch the launch vehicle status during various intervals

1.8.2 Program Reviews – programmatic reviews to identify schedule, cost, manpower, anomalies, with corrective actions, and other information on the status of the program

1.8.3 Pre-Ship Review – a review of the build and test status with emphasis on the readiness to ship the launch vehicle to the field

1.8.4 Pre-launch Reviews – a review of the launch vehicle's final status prior to launch with the objective to get government approval to continue with the launch operations

1.8.5 Technical Interchange Meeting – meetings with the government and associated contractors that emphasis specific design disciplines or a specific issue

1.8.6 Range Working Groups – period meeting with the range, program office and payload provider (and/or customer) to plan out field operation, coordinate ICD, UDS, etc

1.8.7 Scheduling – maintaining and coordinating the IMS

1.8.8 Integrated Management Plan - maintaining and coordinating the IMP

See separate file on http://eda.ogden.disa.mil

or https://www.nafi.navy.mil for Attachment 9

I. NOTICE: The following solicitation provisions pertinent to this section are hereby incorporated by reference:

A. FEDERAL ACQUISITION REGULATION SOLICITATION PROVISIONS

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)
52.225-02 BUY AMERICAN ACT CERTIFICATE (JUN 2003)

B. DEFENSE FEDERAL ACQUISITION REGULATION SUPPLEMENT SOLICITATION PROVISIONS

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)
252.225-7003 REPORT OF INTENDED PERFORMANCE OUTSIDE THE UNITED STATES (APR 2003)

II. NOTICE: The following solicitation provisions pertinent to this section are hereby incorporated in full text:

A. FEDERAL ACQUISITION REGULATION SOLICITATION PROVISIONS IN FULL TEXT

52.203-02 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that--

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory--

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision ___ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) of this provision have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through)a)(3) of this provision; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; and

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (DEVIATION) (APR 1991)

(Applicable only to this instant procurement, not to 'any' contract, and only if proposal or resultant contract is in excess of $100,000).

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

52.204-03 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

Common parent, as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

Taxpayer Identification Number (TIN), as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

[ ] TIN:.----------

[ ]TIN has been applied for.

[ ] TIN is not required because:

[ ]Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying
agent in the United States;

[ ] Offeror is an agency or instrumentality of a foreign government;

[ ] Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

[ ] Sole proprietorship;

[ ] Partnership;

[ ] Corporate entity (not tax-exempt);

[ ] Corporate entity (tax-exempt);

[ ] Government entity (Federal, State, or local);

[ ] Foreign government;

[ ] International organization per 26 CFR 1.6049-4;

[ ] Other----------

(f) Common parent.

[ ] Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

[ ] Name and TIN of common parent:

Name----------

TIN----------

52.204-05 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. "Women-owned business concern," as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. (Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representation, of this solicitation.) The offeror represents that it [ ] is, [ ] is not a women-owned business concern.

52.209-05 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)

(1) The Offeror certifies, to the best of its knowledge and belief, that --

(i) The Offeror and/or any of its Principals --

(A) Are [ ] are not [ ] presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have [ ] have not [ ], within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are [ ] are not [ ] presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) The offeror has [ ] has not [ ] within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous

certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

52.214-16 MINIMUM BID ACCEPTANCE PERIOD (APR 1984)

(a) "Acceptance period," as used in this provision, means the number of calendar days available to the Government for awarding a contract from the date specified in this solicitation for receipt of bids.

(b) This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.

(c) The Government requires a minimum acceptance period of 120 calendar days.

(d) In the space provided immediately below, bidders may specify a longer acceptance period than the Government's minimum requirement. The bidder allows the following acceptance period: ___ calendar days.

(e) A bid allowing less than the Government's minimum acceptance period will be rejected.

(f) The bidder agrees to execute all that it has undertaken to do, in compliance with its bid, if that bid is accepted in writing within (1) the acceptance period stated in paragraph (c) of this clause or (2) any longer acceptance period stated in paragraph (d) of this clause.

52.215-06 PLACE OF PERFORMANCE (OCT 1997)

(a) The offeror or respondent, in the performance of any contract resulting from this solicitation, [ ] intends, [ ] does not intend [check applicable block] to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or response to request for information.

(b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

Place of performance (street address, city, state, county, zip code)	Name and Address of Owner and Operator of the Plant or Facility if Other Than Offeror or Respondent
___	

52.219-01 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) - ALTERNATE I (APR 2002)

(a)

(1) The North American Industry Classification System (NAICS) code for this acquisition is 336414.

(2) The small business size standard is $4.0M.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations.

(1) The offeror represents as part of its offer that it [ ] is, [ ] is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it [ ] is, [ ] is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it [ ] is, [ ] is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it [ ] is, [ ] is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it [ ] is, [ ] is not a service-disabled veteran-owned small business concern.

(6) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It [ ] is, [ ] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It [ ] is, [ ] is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate of the HUBZone small business concern or concerns that are participating in the joint venture. [The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: .] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(c) Definitions. As used in this provision--

"Service-disabled veteran-owned small business concern"-

(1) Means a small business concern-

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

"Veteran-owned small business concern" means a small business concern-

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall --

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

Alternate I (Apr 2002). As prescribed in 19.307(a)(2), add the following paragraph (b)(7) to the basic provision:

(7) [Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.] The offeror shall check the category in which its ownership falls:

___ Black American.

___ Hispanic American.

___ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

___ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

___ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

___ Individual/concern, other than one of the preceding.

52.219-22 SMALL DISADVANTAGED BUSINESS STATUS (OCT 1999)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either-

___(i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

(A) No material change in disadvantaged ownership and control has occurred since its certification; and

(B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(C) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net); or

___(ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2) __ For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.]

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall:

(1) Be punished by imposition of a fine, imprisonment, or both;

(2) Be subject to administrative remedies, including suspension and debarment; and

(3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that--

(a) It [ ] has, [ ] has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) It [ ] has, [ ] has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The offeror represents that

(a) It [ ] has developed and has on file, [ ] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or

(b) It [ ] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)

(a) Executive Order 13148, of April 21, 2000, Greening the Government through Leadership in Environmental Management, requires submission of this certification as a prerequisite for contract award.-

(b) By signing this offer, the offeror certifies that----

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or--

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)-

_ _ _ _ (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;

_ _ _ _ (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);-

_ _ _ _ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

_ _ _ _ (iv) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:

(A) Major group code 10 (except 1011, 1081, and 1094).

(B) Major group code 12 (except 1241).

(C) Major group codes 20 through 39.

(D) Industry code 4911, 4931, 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).

(E) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.)), or 5169, 5171, 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or

_ _ _ _ (v) The facility is not located in the United States or its outlying areas.

52.230-01 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (JUN 2000)

Note: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. DISCLOSURE STATEMENT--COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of $500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

[ ] (1) Certificate of Concurrent Submission of Disclosure Statement.

The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable, and (ii) one copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____
Name and Address of Cognizant ACO or Federal Official Where Filed:

_____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

[ ] (2) Certificate of Previously Submitted Disclosure Statement.

The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____ Name and Address of Cognizant ACO or Federal Official Where Filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

[ ] (3) Certificate of Monetary Exemption.

The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling $50 million or more in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

[ ] (4) Certificate of Interim Exemption.

The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of $50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. COST ACCOUNTING STANDARDS--ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

[ ] The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than $50 million in awards of CAS-covered prime contracts and subcontracts. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

Caution: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of $50 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of $50 million or more.

III. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

[ ] YES [ ] NO

B. DEFENSE FAR SUPP SOLICITATION PROVISIONS IN FULL TEXT

252.209-7002 DISCLOSURE OF OWNERSHIP OR CONTROL BY A FOREIGN GOVERNMENT (SEP 1994)

(a) Definitions. As used in this provision--

(1) "Effectively owned or controlled" means that a foreign government or any entity controlled by a foreign government has the power, either directly or indirectly, whether exercised or exercisable, to control the election, appointment, or tenure of the Offeror's officers or a majority of the Offeror's board of directors by any means, e.g., ownership, contract, or operation of law (or equivalent power for unincorporated organizations).

(2) "Entity controlled by a foreign government"--

(i) Means--

(A) Any domestic or foreign organization or corporation that is effectively owned or controlled by a foreign government; or

(B) Any individual acting on behalf of a foreign government.

(ii) Does not include an organization or corporation that is owned, but is not controlled, either directly or indirectly, by a foreign government if the ownership of that organization or corporation by that foreign government was effective before October 23, 1992.

(3) "Foreign government" includes the state and the government of any country (other than the United States and its possessions and trust territories) as well as any political subdivision, agency, or instrumentality thereof.

(4) "Proscribed information" means--

(i) Top Secret information;

(ii) Communications Security (COMSEC) information, except classified keys used to operate secure telephone units (STU IIIs);

(iii) Restricted Data as defined in the U.S. Atomic Energy Act of 1954, as amended;

(iv) Special Access Program (SAP) information; or

(v) Sensitive Compartmented Information (SCI).

(b) Prohibition on award. No contract under a national security program may be awarded to an entity controlled by a foreign government if that entity requires access to proscribed information to perform the contract, unless the Secretary of Defense or a designee has waived application of 10 U.S.C. 2536(a).

(c) Disclosure. The Offeror shall disclose any interest a foreign government has in the Offeror when that interest constitutes control by a foreign government as defined in this provision. If the Offeror is a subsidiary, it shall also disclose any reportable interest a foreign government has in any entity that owns or controls the subsidiary, including reportable interest concerning the Offeror's immediate parent, intermediate parents, and the ultimate parent. Use separate paper as needed, and provide the information in the following format:

Offeror's Point of Contact for Questions about Disclosure
(Name and Phone Number with Country Code, City Code
and Area Code, as applicable)

Name and Address of Offeror

Name and Address of Entity Controlled by a Foreign Government	Description of Interest, Ownership Percentage, and Identification of Foreign Government

252.225-7000 BUY AMERICAN ACT-- BALANCE OF PAYMENTS PROGRAM CERTIFICATE (APR 2003)

(a) Definitions. "Domestic end product," "foreign end product," "qualifying country," and "qualifying country end product" have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.

(b) Evaluation. The Government-

(1) Will evaluate offers in accordance with the policies and procedures of Part 225 of the Defense Federal Acquisition Regulation Supplement; and

(2) Will evaluate offers of qualifying country end products without regard to the restrictions of the Buy American Act or the Balance of Payments Program.

(c) Certifications and identification of country of origin.

(1) For all line items subject to the Buy American Act and Balance of Payments Program clause of this solicitation, the offeror certifies that-

(i) Each end product, except those listed in paragraphs (c)(2) or (3) of this provision, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The offeror certifies that the following end products are qualifying country end products:

Line Item Number	Country of Origin
_____	_____

(3) The following end products are other foreign end products:

Line Item Number	Country of Origin (If known)
_____	_____

252.225-7018 NOTICE OF PROHIBITION OF CERTAIN CONTRACTS WITH FOREIGN ENTITIES FOR THE CONDUCT OF BALLISTIC MISSILE DEFENSE RESEARCH, DEVELOPMENT, TEST, AND EVALUATION (APR 2003)

(a) Definitions.

(1)"Competent" means the ability of an offeror to satisfy the requirements of the solicitation. This determination is based on a comprehensive assessment of each offeror's proposal including consideration of the specific areas of evaluation criteria in the relative order of importance described in the solicitation.

(2)"Foreign firm" means a business entity owned or controlled by one or more foreign nationals or a business entity in which more than 50 percent of the stock is owned or controlled by one or more foreign nationals.

(3)"U.S. firm" means a business entity other than a foreign firm.

(b) Except as provided in paragraph (c) of this provision, the Department of Defense will not enter into or carry out any contract, including any contract awarded as a result of a broad agency announcement, with a foreign government or firm if the contract provides for the conduct of research, development, test, or evaluation in connection with the Ballistic Missile Defense Program. However, foreign governments and firms are encouraged to submit offers, since this provision is not intended to restrict access to unique foreign expertise if the contract will require a level of competency unavailable in the United States.

(c) This prohibition does not apply to a foreign government or firm if-

(1) The contract will be performed within the United States;

(2) The contract is exclusively for research, development, test, or evaluation in connection with antitactical ballistic missile systems;

(3) The foreign government or firm agrees to share a substantial portion of the total contract cost. The foreign share is considered substantial if it is equitable with respect to the relative benefits that the United States and the foreign parties will derive from the contract. For example, if the contract is more beneficial to the foreign party, its share of the costs should be correspondingly higher; or

(4) The U.S. Government determines that a U.S. firm cannot competently perform the contract at a price equal to or less than the price at which a foreign government or firm can perform the contract.

(d) The offeror (___) is (___) is not a U.S. firm.

252.227-7017 IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JUN 1995)

(a) The terms used in this provision are defined in following clause or clauses contained in this solicitation--

(1) If a successful offeror will be required to deliver technical data, the Rights in Technical Data--Noncommercial Items clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.

(2) If a successful offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.

(b) The identification and assertion requirements in this provision apply only to technical data, including computer software documentation, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovative Research Program, the notification and identification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.

(c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, assert should be furnished to the Government with restrictions on use, release, or disclosure.

(d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror:

Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted:

Technical Data or Computer Software to be Furnished With Restrictions*	Basis for Assertion**	Asserted Rights Category***	Name of Person Asserting Restrictions****

*For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such item, component, or process. For computer software or computer software documentation identify the software or documentation.

**Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.

***Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).

****Corporation, individual, or other person, as appropriate.

*****Enter "none" when all data or software will be submitted without restrictions.

Date _ _ _ _ _ _ _ _ _ _ _

Printed Name and Title _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _

Signature

_ _ _ _ _ _ _ _ _ _ _

(End of identification and assertion)

(e) An offeror's failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible for award.

(f) If the Offeror is awarded a contract, the assertions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed assertion.

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term "supplies" is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it--

____ Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

C. AIR FORCE MATERIEL COMMAND FEDERAL ACQUISITION REGULATION SUPPLEMENT SOLICITATION PROVISIONS IN FULL TEXT

5352.215-9007 USE OF NON-GOVERNMENT ADVISORS (AFMC) (NOV 1998)

(a) Offerors are advised that technical and cost/price data submitted to the Government in response to this solicitation may be released to non-Government advisors for review and analysis. The non-Government advisor support will be provided by:

Name of firm(s)
Northrop Grumman, Space & Missile Systems

(b) Offerors shall complete paragraph (b)(2) or provide written objection to disclosure as indicated in paragraph (b)(1). If the offeror objects to disclosure of a portion of the proposal, the consent in (b)(2) should be provided for the remainder of the proposal.

(1) Any objection to disclosure:

(i) Shall be provided in writing to the contracting officer within 10 days of RFP issuance; and

(ii) Shall include a detailed statement of the basis for the objection. The detailed statement shall identify the specific portions of the proposal the offeror objects to disclosure to non-Government advisors. (2) I understand technical and cost/price data submitted to the Government in response to this solicitation may be released to non-Government advisors. I consent to release of any (unless objection is provided in (b)(1) above) proprietary, confidential, or privileged commercial or financial data provided by the firm(s) named below in response to this solicitation, to non-Government advisors for review and analysis:

Firm:

Name (individual authorized to commit firm):

Title:

Date of Execution:

D. OTHER SOLICITATION PROVISIONS IN FULL TEXT

K001 JOINT VENTURE (MAY 1997)

In addition to the requirements of FAR 4.102, and to assure a single point of contact for resolution of contractual matters and payments under any resultant contract, each participant in a joint venture must complete and sign the certification hereunder. The completed certifications are to be provided with the offerors'/bidders' response to this solicitation.

The parties hereto expressly understand and agree as follows:

(a) ___ (name, title, company) is the principal representative of the joint venture. As such, all communications regarding the administration of the contract and the performance of the work thereunder may be directed to him or her. In the absence of ___ (same name, title, and company as above), ___ (name, title, and company of alternate) is the alternate principal representative of the joint venture.

(b) Direction, approvals, required notices, and all other communications from the Government to the joint venture, including transmittal of payments by the Government, must be directed to ___ (name, title and company of principal), principal representative of the joint venture.

FIRM ___ FIRM ___

NAME ___ NAME ___

TITLE ___ TITLE ___

DATE OF EXECUTION ___ DATE OF EXECUTION ___

NOTE: If additional signatures are required, submit the above certification, in the identical format, as an attachment to your response to this solicitation and complete this block indicating the same [ ].

I. NOTICE: The following solicitation provisions pertinent to this section are hereby incorporated by reference:

A. FEDERAL ACQUISITION REGULATION SOLICITATION PROVISIONS

52.204-06	DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (OCT 2003)
52.215-01	INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (JAN 2004)
52.215-16	FACILITIES CAPITAL COST OF MONEY (JUN 2003)
52.215-20	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997) - ALTERNATE III (OCT 1997) Alt III, Para (c) Submit the cost portion of the proposal via the following electronic media: 'MS Excel or compatible spreadsheet format'
52.216-01	TYPE OF CONTRACT (APR 1984) Type of contract is 'Fixed Price Incentive Firm'
52.216-27	SINGLE OR MULTIPLE AWARDS (OCT 1995)
52.222-24	PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE EVALUATION (FEB 1999)
52.232-38	SUBMISSION OF ELECTRONIC FUNDS TRANSFER INFORMATION WITH OFFER (MAY 1999)
52.233-02	SERVICE OF PROTEST (AUG 1996) Para (a) Official or location is 'SMC Det 12/PKS, 3548 Aberdeen Ave., SE Kirtland AFB NM 87117'

B. AIR FORCE FEDERAL ACQUISITION REGULATION SUPPLEMENT SOLICITATION PROVISIONS

5352.215-9000 FACILITY CLEARANCE (MAY 1996)

II. NOTICE: The following solicitation provisions pertinent to this section are hereby incorporated in full text:

A. FEDERAL ACQUISITION REGULATION SOLICITATION PROVISIONS IN FULL TEXT

52.252-01 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es): http://farsite.hill.af.mil/

52.252-05 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

B. OTHER SOLICITATION PROVISIONS IN FULL TEXT

DET 12-L002 SMC 52.15-4 ACQUISITION OMBUDSMAN (FEB 2004)

An Ombudsman has been appointed to hear concerns from offerors or potential offerors during the proposal development phase of this acquisition. The Ombudsman does not diminish the authority of the program director or Contracting Officer, but communicates Contractor concerns, issues, disagreements, and recommendations to the appropriate Government personnel. When requested, the Ombudsman shall maintain strict confidentiality as to the source of the concern. The Ombudsman does not participate in the evaluation of proposals or in the source selection process. Interested parties are invited to call David Ganger at (310) 363-0588.

DET 12-L003 L-III-INFORMATION TO OFFERORS (ITO) AND INSTRUCTIONS FOR PROPOSAL PREPARATION (JUN 2004)

DET 12-L003 L-III-INFORMATION TO OFFERORS (ITO) AND INSTRUCTIONS FOR PROPOSAL PREPARATION (JUN 2004)

DET 12-L003 L-III-INFORMATION TO OFFERORS (ITO) AND INSTRUCTIONS FOR PROPOSAL PREPARATION (JUN 2004)

DET 12-L001 INFORMATION TO OFFERORS (ITO) AND INSTRUCTIONS FOR PROPOSAL PREPARATION (April 2004)

1.0 Program Structure and Objectives

(a) The Air Force Space and Missile Systems Center's Detachment 12 (SMC Det 12), Rocket Systems Launch Program (RSLP) anticipates award of Multiple Indefinite Delivery Indefinite Quantity (IDIQ) Responsive Small Spacelift (RSS) contracts to provide RSS for delivering small satellites into orbit in support of RSLP missions. This effort will be a competitive source selection. The requirements for this effort are defined in the Technical Requirements Documents (TRD) for each Mission. The Missions TRDs detail the minimum capabilities required to be eligible for a RSS basic contract award.
The Government intends to award multiple contracts with up to six (6) launch vehicle configurations for this effort. The mission capability evaluation is based on TRD requirements. A contractor can be awarded more than one configuration or mission type.
The Government reserves the right to award either of the sample missions to the RSS Contractor that provides the best value to the Government as a delivery order along with the basic contract.

(b) Although not being evaluated as part of the award of the basic contract, an initial Cost Plus Fixed Fee (CPFF) delivery order for a User's Guide for each awarded spacelift vehicle configuration, with a maximum value of $30,000, will be issued to all successful offerors immediately following the basic contract award. This will satisfy the guaranteed minimum amount of $30,000 ordered by the Government under this IDIQ contract. The User's Guide will provide information on the proposed spacelift vehicle(s) necessary for potential satellite or payload developers to understand the interfaces, launch environments, available payload volume, ordnance/command discretes available, power available, etc. necessary to design an Interface Control Document (ICD) and/or decide if the spacelift vehicle is capable of placing the satellite into the required orbit. The TRD's will be posted on the RSS website at www.smcdet12.plk.af.mil.

2.0 General Instructions

(a) This section of the Instructions to Offerors (ITO) provides general guidance for preparing proposals as well as specific instructions on the format and content of the proposal. The offeror's proposal must include all data and information requested by the ITO and must be submitted in accordance with these instructions. The offer shall be compliant with the requirements as stated in the TRD and Contract Data Requirements List (CDRL). Non-conformance with the instructions provided in the ITO may result in an unfavorable proposal evaluation.

(b) The proposal shall be clear, concise, and shall include sufficient detail for effective evaluation and for substantiating the validity of stated claims. The proposal should not simply rephrase or restate the Government's requirements, but rather shall provide convincing rationale to address how the offeror intends to meet these requirements. Offerors shall assume that the Government has no prior knowledge of their facilities and experience, and will base its evaluation on the information presented within the offeror's proposal.

(c) Elaborate brochures or documentation, binding, detailed artwork, or other embellishments are unnecessary and are not desired.

(d) The proposal acceptance period is specified in Section A of the solicitation. The offeror shall make a clear statement in the Executive Summary, Volume 1 of the proposal, that the proposal is valid to, at least, 180 days past proposal receipt.

(e) In accordance with FAR Subpart 4.8 (Government Contract Files), the Government will retain one copy of all unsuccessful proposals. Unless the offeror requests otherwise, the remaining copies will be destroyed.

(f) The RFP documents and any amendments thereto and general information regarding this acquisition are available on Responsive Small Spacelift (RSS) website at www.smcdet12.plk.af.mil.

2.1 General Information

2.1.1 Points of Contact
The Contracting Officer (CO) Mr Mel Pearson and the Contract Negotiator (CN), Lt Steve Howard are the "sole" points of contact for this acquisition. Address any questions or concerns you may have to the CO or CN at (505) 853-3503 or (505) 853-6690, respectively. Written requests for clarification may be sent to the CO or CN at the address located in Section A of the solicitation, or via email at Mel.Pearson@Kirtland.af.mil or Steve.Howard@Kirtland.af.mil.

2.1.2 Debriefings
All offerors may request debriefings by providing a written request to the Contracting Officer. In accordance with FAR 15.505, offerors excluded from the competitive range or otherwise excluded from competition before award may request a pre-award debriefing by submitting a written request to the Contracting Officer within three (3) days after receipt of the Contracting Officer's notice of exclusion from competition. In accordance with FAR 15.560, offerors may request a post award debriefing by submitting a written request to the Contracting Officer within three (3) days after the date the Offeror received notification of the contract award.

2.1.3 Discrepancies
If an offeror believes that the requirements in these instructions contain an error, omission, or are otherwise unsound, the offeror shall immediately notify the Contract Negotiator in writing with supporting rationale. The offeror is reminded that the Government reserves the right to award this effort based on the initial proposal, as received, without discussions.

2.2 Organization/Number of Copies/Page Limits
The offeror shall prepare the proposal as set forth below. The titles and contents of the volumes shall be as defined in the following table. Each volume shall be within the required page limits and number of copies as prescribed in the table below. The contents of each proposal volume are described in this ITO. Please submit Volumes I and II together in a single binder, and Volumes III and V together in a single binder. Submit Volume IV separately in its own binder.

Volume	Title	Page Limit	Hard/Soft Copies Required
I	Executive Summary	5	7 + 2 Electronic*
II	Mission Capability (TRD)		7 + 2 Electronic*
IIA.1	Mission Capability	25 each configuration	
IIA..2	Mission Capability Appendix		

IIA..2.1	Integrated Master Plan (IMP)	10	
IIA..2.2	Integrated Mstr Schedule (IMS)	Unlimited	
IIA..2.3	Contractor Statement of Work (CSOW)	Unlimited	
IIA..2.4	Small Business Subcontracting Plan	Unlimited	
IIA..2.6	Resumes of Key Personnel	10	
IIA..2.7	Agreements with Facility Owners (if applicable)	Unlimited	
III	Cost/Price (MRD)	Unlimited	3 + 2 Electronic*
IV	Past Performance (TRD)	3 pages per contract	3 + 2 Electronic*
V	Contract Documentation	Unlimited	3

* Electronic submittal shall be in Word 2000 and/or PDF, or equivalent format.
** Note: page limit of three (3) applies per relevant contract.

2.2.1 Page Limitations
Page limitations shall be treated as maximums. If exceeded, the excess pages will not be read or considered in the evaluation of the proposal and (for paper copies) will be returned to the offeror as soon as practicable. When both sides of a sheet display printed material, it shall be counted as 2 pages. Each page shall be counted except the following: Cover pages, tables of contents, tabs, glossaries, resumes, subcontracting plans, past performance questionnaires, organization structure change histories, consent forms and client authorization letters. Page limitations shall be placed on responses to Evaluation Notices (ENs), if issued. The specified page limits for EN responses will be identified in the letters forwarding the ENs to the offerors.

2.2.2 Cost or Pricing Information
All cost or pricing information shall be addressed ONLY in the Cost/Price Proposal and Contract Documentation Volumes.

2.2.3 Cross Referencing
To the greatest extent possible, each volume shall be written on a stand-alone basis so that its contents may be evaluated with a minimum of cross-referencing to other volumes of the proposal. Information required for proposal evaluation that is not found in its designated volume will be assumed to have been omitted from the proposal. Cross-referencing within a proposal volume is permitted where its use would conserve space without impairing clarity.

2.2.4 Indexing
Each volume shall contain a more detailed table of contents to delineate the subsections within that volume. Tab indexing shall be used to identify sections.

2.2.5 Glossary of Abbreviations and Acronyms
Each volume shall contain a glossary of all abbreviations and acronyms used, with an explanation for each. Glossaries do not count against the page limitations for their respective volumes.

2.3. Page Size and Format
(a) Page size shall be 8.5 x 11 inches, not including foldouts. Pages shall be single-spaced. Except for the reproduced sections of the solicitation document, the text size shall be no less than 12 point. Tracking, kerning, and leading values shall not be changed from the default values of the word processing or page layout software. Use at least 1-inch margins on the top and bottom and 3/4 inch side margins. Pages shall be numbered sequentially by volume. These page format restrictions shall apply to responses to Evaluation Notices (ENs). These limitations shall apply to both electronic and hard copy proposals.
(b) Legible tables, charts, graphs and figures shall be used wherever practical to depict organizations, systems and layout, implementation schedules, plans, etc. These displays shall be uncomplicated, legible and shall not exceed 11 by 17 inches in size. Foldout pages shall fold entirely within the volume, and each 8.5 x 11 surface of a foldout shall be counted as a separate page. Foldout pages may only be used for large tables, charts, graphs, diagrams and

schematics, not for pages of text. For tables, charts, graphs and figures, the text shall be no smaller than 8 point. These limitations shall apply to both electronic and hard copy proposals.

2.4 Binding and Labeling
Each volume of the proposal should be bound in a three-ring loose-leaf binder (or spiral binder) that shall permit the volume to lie flat when open. Staples shall not be used. A cover sheet should be included in the binder, clearly marked as to volume number, title, copy number, solicitation identification and the offeror's name. The same identifying data should be placed on the spine of the binder. All unclassified document binders shall have a color other than red or other applicable security designation colors. Be sure to apply all appropriate markings including those prescribed in accordance with FAR 52.215-1(e), Restriction on Disclosure and Use of Data, and 3.104-5, Disclosure, Protection, and Marking of Contractor Bid or Proposal Information and Source Selection Information.

2.5 Distribution
The deadline for the Government's receipt of proposal is found on the DD Form 1707, Block 3, in section A of this RFP. Earlier submittal of Volume IV, Past Performance, is requested as indicated in Block 7 of the DD Form 1707. The "original" proposal shall be identified. Proposals shall be addressed and delivered to: SMC Det 12/PKN, Attn: Lt Steve Howard, 3548 Aberdeen Ave SE, Kirtland AFB NM 87117-5778. Proposals received after the date and time specified shall be treated in accordance with FAR 52.215-1.

3.0 Volume I - Executive Summary
In the executive summary volume, the offeror shall provide the following information:

3.1 Narrative Summary
The executive summary shall consist of a concise narrative summary of the entire proposal (a matrix is an allowable, complementary tool), including significant risks, and a highlight of any key or unique features, excluding cost/price. The salient features should tie in with Section M evaluation factors/subfactors. Any summary material presented here shall not be considered as meeting the requirements nor evaluated as part of the source selection.

3.2 Table of Contents
Contains a master Table of Contents of the entire proposal.

4.0 Volume II - Mission Capability Volume (TRD)

4.1 General
The Mission Capability Volume should be specific and complete. Legibility, clarity and coherence are very important. Your responses will be evaluated against the Mission Capability subfactors defined in Section M, Evaluation Factors for Award. Using the instructions provided below, provide as specifically as possible the actual methodology you would use for accomplishing/satisfying these subfactors for the Mission(s). All the requirements specified in the Sample Mission(s) TRD(s) are mandatory. By your proposal submission, you are representing that your firm will perform all the requirements specified in the solicitation. It is not necessary or desirable for you to tell us so in your proposal. Do not merely reiterate the objectives or reformulate the requirements specified in the solicitation.

4.2 Format and Specific Content
This Request for Proposal (RFP) contains the Government prepared Statement of Objectives and a TRD for each sample mission. The basic tasks covered by this RFP are to provide launch services for low cost, responsive spacelift and/or air-launched spacelift vehicles capable of placing specified satellites into required orbits. The offeror shall use the contents of the Mission(s) TRD to develop a Contractor Statement of Work (CSOW), an Integrated Management Plan (IMP) and an Integrated Master Schedule (IMS). Each paragraph in the Mission Capability Volume shall be cross-referenced with the appropriate TRD paragraph, CDRL (if applicable) and CSOW paragraph. A complete definition of the tasks to be accomplished shall be incorporated into the IMP. The relationship between elements of the RFP and the offeror's proposal are described below.

4.2.1 Mission Capability and Proposal Risk

Mission Capability and Proposal Risk will be addressed in the Mission Capability volume. In this volume, address your proposed approach to meeting the requirements of each Mission Capability subfactor, as well as the risks in your proposed approach in terms of mission capability/performance, cost and/or schedule.
Address Proposal Risk by identifying those aspects of the proposal you consider to involve cost and/or mission capability subfactor risk and classify each in accordance with AFFARS 5315.305(a)(3)(iii). Provide the rationale for each risk and it's rating, including quantitative estimates of the impact on cost, schedule, and performance. Describe the impact of each identified risk in terms of its potential to interfere with or prevent the successful accomplishment of other contract requirements (for example: TRD or specification requirements), whether or not those requirements are identified as subfactors or elements. Suggest a realistic "work-around" or risk mitigation plan for identified risks that will eliminate or reduce risk to an acceptable level. Identify and classify any new risks introduced by such risk mitigation.

4.2.2 Requirements
The offeror shall address each paragraph of the TRD requirements. The offeror shall provide supporting rationale for all the requirements identified in the TRD to allow the Government to evaluate the offerors understanding of the requirements for the spacelift services. Should an offeror take exception to a TRD requirement, the offeror shall include details and explanations. The offeror shall identify and categorize the risks associated with the TRD requirements and proposed risk mitigations.
The TRD has generic requirements for the spacelift with specific requirements for the two missions, identified as Mission I and Mission II. Mission I is for a low cost, responsive, (12-month period of performance) Small Satellite, Spacelift capability, and the Mission II is for an Air-Launched, responsive (18-month PoP) Small Satellite Spacelift Capability. The offeror shall provide a compliance matrix (see Table 4.2.1) that identifies capabilities and mythology proposed to meet the requirements. The matrix does not count against page limits.

Table 4.2.1 - Example of Compliance Matrix

TRD Para.	Requirement	How Met	How Verified	Risk
3.3.1.3	Accomodate a 60" dia x 40" high payload.	Usable volume in faring is 25" length x 25" width x 50" height	ICD with satellite provider and fit check 3-months prior to launch.	Low, ICD and measurement easily verified, fix check in time to address unlikely problem with fit.

4.2.3 Volume Organization. Proposals containing those factors defined below as "enhancements" shall receive a higher rating if they provide an additional benefit to the government.
The Mission Capability volume shall be organized according to the following general outline:
a. Table of Contents
b. List of Table and Drawings
c. Glossary
d. Mission Capability
- Subfactor 1: Vehicle Performance
- Subfactor 2: Design Maturity
- Subfactor 3: Operations and Range Integration
- Subfactor 4: Payload Accommodation
e. Mission Capability Appendices
-IMP
-IMS
-CSOW
-Small Business Subcontracting Plan
-WBS Man Loading Estimate

-Resumes of key personnel
-Agreements with Facility Owners (if applicable)

4.2.4 Subfactor 1: Vehicle Performance

4.2.4.1 Throw-weight to Orbit
The offeror shall identify the capability of the launch vehicle to achieve the required orbit(s) of the sample missions. Identify any excess capability for payload weight.
Identify the maximum performance capabilities of the proposed spacelift vehicles in terms of throw weight to achievable circular orbits.

4.2.4.2 Insertion Accuracy
a. Identify the capability to achieve the required insertion accuracy and identify the maximum insertion accuracy capability of the proposed launch vehicle.
b. (Enhancement) Identify the ability to achieve the enhanced insertion accuracy.

4.2.4.3 Attitude Control
Identify the capability to meet the required attitude control authority for payload deployment and identify the achievable attitude control accuracies.

4.2.4.4 Collision/Contamination Maneuver
Identify the capability to perform a collision /contamination maneuver that precludes the possibility of the launch vehicle re-contacting the satellite(s)/payload.

4.2.5 Subfactor 2: Design Maturity

4.2.5.1 CDR Level of Design or Better
The offeror shall identify the design maturity for the spacelift vehicle, to include: motor and/or engine, loads and environments analysis, electronics used, bending modes analysis, thermal analysis, software design level, guidance schemes, required ground support equipment, Concepts of Operations (ConOps), Flight Safety System (FTS) design, and TeleMetry (TM) system design.

4.2.5.2 Telemetry and Instrumentation
a. Identify plan for providing the vehicle position and attitude data (state vectors) via telemetry in the required format for the range.
b. Identify the telemetry format and data rate planned to support sending vehicle health and status data and required range data.
c. Identify the transmitter and antenna characteristics for the proposed spacelift vehicle(s).
d. (Enhancement) Identify the capability to achieve the enhanced telemetry data rate.

4.2.5.3 EMI/EMC
a. Identify anticipated radiated and conducted emissions that could effect the payload, TM and FTS systems.
b. Identify the capability to launch the proposed launch vehicle(s) at any of the established government or commercial ranges without adverse effects from their electromagnetic environments or from EMI either radiated or conducted from the payload.

4.2.5.4 Launch Availability
Identify the capability to meet the required launch availability due to winds or other weather conditions.

4.2.5.5 Mission Reliability
Identify the design reliability of the proposed launch vehicles for flight hardware/software and for range safety hardware.

4.2.5.6 Quality Assurance

Submit a quality assurance plan that identifies the spacelift vehicle(s) verification process to include the development test, qualification test, system integration test, flight proof test and integration testing and how verified (i.e. analysis, similarity, inspection, demonstration, and/or test).

4.2.5.7 Mission Design Reviews
Identify the plan for providing the government with insight into the proposed spacelift vehicle(s) design, build, testing and field operations.

4.2.5.8 Organization
The offeror shall discuss their planned organization, lines of authority, responsibilities and staffing approach. The proposal will detail the ability to provide management support for the sample mission(s) as well as the ability to maintain critical skills during slack periods. The Offeror shall show how their proposed organization is responsive to the TRD requirements and would provide the Government timely information and insight into RSS capability and support status, throughout the mission planning process and during the launch campaign, to ensure effective integration of the launch team with the site. The Offeror shall ensure personnel have experience coordinating with the Government, the Range personnel and the Payload/Satellite Provider. The offeror shall demonstrate, through resumes, adequate expertise in the key positions (offeror defined). Contractor format is acceptable for resumes and shall include at a minimum experience and education. The offeror shall also provide a plan to retain key personnel.

4.2.5.9 Integrated Management Plan (IMP)
The offeror shall submit an IMP that will become part of the contract. The plan shall detail the activities required to design, build, test and launch the proposed spacelift vehicle(s) according to the requirements in the TRD. The IMP shall be in sufficient detail to enable the evaluation of the offeror's effectiveness in accomplishing the work called for in this RFP. The offeror shall identify any schedule, technical, and cost risks and describe a method for mitigation. The IMP shall describe the core activities and processes necessary to implement and satisfy the TRD requirements. The IMP shall be a single plan for the entire contract, including associate and/or major subcontractor activities. It will serve as a baseline for all delivery orders issued under this contract. It shall provide the planned approach for providing Government teams adequate insight through design reviews, program reviews, readiness reviews, pre & post-flight reviews, technical interchange meetings, data submittals and teleconferencing. The IMP shall address how discrepancies are documented, tracked and closed. The offeror shall demonstrate an understanding of Range Safety requirements or other government approved safety documentation necessary for launch activities and launch approval.

4.2.5.10 Integrated Master Schedule (IMS)
The offeror shall provide a baseline IMS that includes all major tasks, events, and significant accomplishments (e.g. design reviews, ICD completion, hardware procurement, component testing, system testing, field operations, etc.) and their corresponding dates that lead to support of a pathfinder test, if required, and launch for the sample mission(s). As a minimum, the offeror's format must include traceability of key tasks to those events and significant accomplishments submitted in the IMP, as well as the relationships and dependencies between the tasks. The IMS shall be of sufficient detail to provide visibility on at least a weekly basis through delivery order completion.

4.2.5.11 Small Business Subcontracting Plan
The following is not applicable to offerors who are small businesses.
The offeror shall submit a Small Business Subcontracting Plan that meets DoD goals. If the offeror has an approved master subcontracting plan (FAR 19.704(b) and 52.219-9(f) or an approved comprehensive subcontracting plan (DFARS 219.702), submit an addendum with its proposal covering any additional information required by this solicitation. The addendum will be incorporated into any resulting contract along with incorporation by reference of the master or comprehensive plan. The offeror's submission must provide sufficient information to support the contracting officer's review of the subcontracting plan to determine if it is acceptable, otherwise an offeror will be ineligible for contract award. Contractors selected to participate in the DoD test program authorized by Section 834 of Public Law 101-189 and who have approved comprehensive subcontracting plans are not required to negotiate subcontracting plans on an individual basis. If the offeror has an approved comprehensive plan under the DoD test program, the offeror shall provide a copy of its approved plan that includes an addendum addressing any additional information required by this solicitation. The addendum will be incorporated into any resulting contract along with incorporation by reference of the master or comprehensive subcontracting plan. Any contract resulting from this solicitation which includes a comprehensive subcontracting plan will include the clause at DFARS 252.219-7004 in

lieu of the clauses at FAR 52.219-9; 52.219-16; 52.219-10; DFARS 252.219-7003 and AFMC FAR Sup 5352.219-9002.

4.2.6 Subfactor 3: Operations and Range Integration

4.2.6.1 Airborne Range Safety Requirements
Identify the design for the command destruct system, testing of the Flight Safety System (FTS) hardware, C-band Transponder and/or GPS tracking systems as required by the applicable range flight safety organization.

4.2.6.2 Mission Period of Performance
a. Identify the ability to meet the mission(s) period of performance (PoP) requirement and any ability to accelerate the launch schedule.
b. (Enhancement) Identify if the enhanced, 6 months for ground or 12 months for air launched PoP is achievable and what additional resources are required to met it.

4.3.6.3 Interface Control Documents (ICD)
Identify the planned ICDs and the spacelift interface to the range and payload.

4.3.6.4 CDRLs
Identify the plan to provide and track the required CDRLs.

4.3.6.5 Logistics
Identify the plan for transporting the motor, engine, structures, avionics, electronics and other spacelift hardware from the factory to the range.

4.3.6.6 Safety
Identify ground safety procedures for factory processing, testing, and field operations.

4.2.6.7 Universal Documentation System (UDS)
The offeror shall identify their capability to use the UDS (RCC 501-97) to interface with a government range.

4.2.7 Subfactor 4: Payload Accommodation

4.2.7.1 Mechanical
a. Identify the capability to meet volume requirements for a mission.
b. Identify the ability to access the payload after the fairing has been mated to the spacelift vehicle.
c. Identify the non-separating interface between the spacelift vehicle and the payload.
d. Identify the ability to lift the required payload weight to the required orbit and identify any excess capability.
e. Identify the ability to accommodate a payload with a first mode nature frequency of 11 hz.
f. (Enhancement) Identify plan for meeting the enhanced separation system as identified in the TRD.

4.2.7.2 Electrical
a. Identify the capability to provide the required ordnance discretes for the payload and any excess capability.
b. Identify the capability to provide the required telemetry throughput from the payload and any excess capability.
c. Identify the capability to provide the required umbilical circuits to the payload and any excess capability.

4.2.7.3 Environments
a. Identify the capability to provide the required thermal environment for the payload.
b. Identify the ability to meet the cleanliness requirements for the sample missions for Class 100,000 and for Visibly Clean, Level II.
c. Identify capability to avoid contamination from the plume effects of all propulsion sources for the proposed spacelift vehicle(s).
d. (Enhancement) Identify the capability to meet the conditioned air enhanced for temperature, humidity and clean air while on the launch pad.

e. (Enhancement) Identify the capability to meet the nitrogen purge enhanced while on the launch pad.
f. (Enhancement) Identify the capability to provide the enhanced payload access panel.
g. (Enhancement) Identify the capability to meet the four enhanced contamination control requirements in the TRD.
h. (Enhancement) Identify the capability to meet the launch pad environmental control enhanced for environmental protection of the launch booster and for assess platforms while on the launch pad.

5.0 Volume III - Cost/Price Volume

5.1 General Instructions

5.1.1 Cost/Price Reasonableness
These instructions are to assist you in submitting information other than cost or pricing data that is required to evaluate the reasonableness of your proposed cost/price. Compliance with these instructions is mandatory and failure to comply may result in rejection of your proposal. Offers should be sufficiently detailed to demonstrate their reasonableness. The burden of proof for credibility of proposed costs/prices rests with the offeror. Data CLINs will not be separately priced. Offerors shall include in their proposal a discrete price for the sample mission(s).

5.1.2 Estimating Techniques and Methods
When responding to the Cost/Price Volume requirements in the solicitation, the offeror and associated subcontractors may use any generally accepted estimating technique, including contemporary estimating methods (such as Cost-to-Cost and Cost-to-Non-Cost Estimating Relationships (CERs), commercially available parametric cost models, in-house developed parametric cost models, etc.) to develop their estimates.

5.1.3 Non-Required Data
Data beyond that required by this instruction shall not be submitted, unless you consider it essential to document or support your cost/price position. All information relating to the proposed price including all required supporting documentation must be included in the section of the proposal designated as the Cost/Price volume. Under no circumstances shall this information and documentation be included elsewhere in the proposal.

5.1.4 Cost or Pricing Information Requirements
In accordance with FAR 15.403-1(b) and 15.403-3(a), information other than cost or pricing data is required to support price reasonableness. Information shall be provided in accordance with FAR 15.403-5. However, use of offeror formats is encouraged providing that all the required information is made available. This information is not considered cost or pricing data, and thus, certification is not required in accordance with FAR 15.406-2. If, after receipt of proposals, the contracting officer determines there is insufficient information available to determine price reasonableness and none of the exceptions at FAR 15.403-1 apply, the offeror will be required to submit cost or pricing data.

5.1.5 Rounding
All dollar amounts provided shall be rounded to the nearest dollar.

5.2 Volume Organization

5.2.1 The cost/price volume shall consist of the following:

a. Estimating Methodology
Provide a summary description of the systems listed below. Also identify any deviations from your standard procedures in preparing this proposal and indicate whether you have Government approval of your system and evidence of such approval.
Estimating System. Separately address each major cost element (e.g., Direct Material, Direct Labor, Indirect Costs, Other Direct costs, Overhead, G&A., etc.).
Unrealistically low or high proposed cost or prices, initially or subsequently, may be grounds for eliminating a proposal from competition either on the basis the offeror does not understand the requirement or has made an unrealistic proposal. Offers shall be sufficiently detailed to demonstrate their cost capability. The burden of proof for cost credibility rests with the offeror.

b. Purchasing System

c. Accounting System - Must be able to collect costs sufficient for FPIF and EVMS purposes.

5.2.2 Cost Summary by Cost Element
Provide the Fixed Price Incentive Firm for the mission and all enhancements.

6.0 Volume IV - Past Performance

6.1 Early Past Performance Volume Submittal
Each offeror must submit a Past Performance Volume with their proposal. Offerors are requested to submit the Past Performance Volume fifteen (15) days after release of the RFP. If the due date happens to fall on a non-business day the volume may be turned in on the next business day. Failure to submit early proposal information will not result in offeror disqualification.

6.2 Relevant Contract Information
Submit past performance information on no more than five (5) recent commercial and/or government contracts that the offeror considers most relevant demonstrating their ability to perform the proposed effort using the Past Performance Relevant Contract Information (Section L, Annex 1). Past Performance Relevant Contract Information for each relevant contract shall not exceed three pages.
Note: The Government will not consider performance on a newly awarded contract without a performance history or on an effort that concluded more than five (5) years prior to this source selection. If no relevant past or present performance information exists, do not submit Past Performance Volume. Instead, explain in the Executive Summary that no relevant past performance exists. We will treat an offeror's lack of past performance as a neutral performance risk, having no positive or negative evaluation significance.

6.3 Evaluation Subfactors
The Past Performance Team (PPT) will assess an offeror's relevant performance in the following areas: Subfactor 1-Vehicle Performance; Subfactor 2-Design Maturity; Subfactor 3-Operations/ Range Integration, and Subfactor 4-Payload Accommodation. The PPT will look for demonstrated performance as it relates to Mission Capability subfactors, wherever possible. Details on how the PPT will conduct its past performance assessment are contained in Section M.

6.4 Organization Structure Change History
Many companies have acquired, been acquired by, or otherwise merged with other companies, and/or reorganized their divisions, business groups, subsidiary companies, etc. In many cases, these changes have taken place during the time of performance of relevant past and present efforts or between conclusion of recent past efforts and this source selection. As a result, it is sometimes difficult to determine what past performance is relevant to this acquisition. To facilitate this relevancy determination, provide a "roadmap" describing all such changes, including all current and previous CAGE & DUNS codes, in the organization of the company, team partners and major subcontractors the past five years. As part of this explanation, show how these changes impact the performance of any efforts the offeror identifies for past performance evaluation. Since the Government intends to consider past performance information provided by other sources as well as that provided by the offeror(s), the "roadmap" should both be specifically applicable to the efforts the offeror identifies and general enough to apply to efforts on which the Government receives information from other sources.

6.5 Past Performance Questionnaire
Each offeror with relevant performance information must send a Performance Questionnaire (Section L, Annex 2) to at least three points of contact for each contract described in the Past Performance Relevant Contract Information (See paragraph L.2). Questionnaires must be sent to customers, and, if applicable, critical subcontractors, team contractors, and/or joint venture partners for each relevant contract. The offeror shall send a standard transmittal letter (Section L, Annex 3) to request that POCs complete an unclassified Performance Questionnaire and submit (mail or fax) the questionnaire within five (5) working days. Preferred points of contact are, in order of descending preference: program manager, PCO, technical or engineering lead. The points of contact shall return completed questionnaires to the POC identified in Section L, Annex 3. For a description of the characteristics or aspects the

Government will consider in determining relevance, see Section M - Evaluation Factors, paragraph M 2.c.3, Past Performance Factor.
The offeror shall track the completion of Performance Questionnaires and document all exchanges and follow-ups with each of the POCs identified in the Contract Information Sheets (See paragraph L.2). Initial Performance Questionnaire tracking status will be provided with the Past Performance Volume IV (Section L, Annex 5). The offeror shall exert its best efforts to ensure that at least three POCs per contract or subcontract submit completed performance questionnaires no more than five (5) working days after submittal of Volume IV. A final tracking record shall be submitted on proposal due date in electronic format as well as printed form in Volume V, Contract Documentation. Offerors shall cease contact with their POCs once the final tracking record is submitted. The PPT may conduct follow-up discussions with any of the POCs and reserves the right to send out additional questionnaires. The offeror is solely responsible for ensuring that questionnaires are submitted in time for use in the evaluation process, and shall make every effort to achieve this objective. Once the Performance Questionnaires are completed by the POCs, the information contained therein shall be considered sensitive and shall not be released to the offeror.

6.6 Contents
The past performance volume shall be limited to three pages per relevant contract, excluding attachments and table of contents. The volume shall be organized as follows:

1. Table of Contents
2. Relevant Contract Information Sheets in accordance with paragraph L.2 (Annex 1, Section L)
3. Attachment 1: Initial Past Performance Questionnaire Tracking Record (Annex 2, Section L).
4. Attachment 2: Consent Letters executed by each subcontractor, teaming partner, and/or joint venture partner, authorizing release of adverse past performance information so the offeror can respond to such information. A sample consent letter is found in Annex 4, Section L.
5. Attachment 3: Transmittal Letters (Annex 3, Section L) for each identified effort for a commercial customer authorizing release to the Government of requested information on the offeror's performance.
6. Attachment 4: Organization Structure Change History in accordance with paragraph L.4.

6.7 Researching Other References
The information provided to the PPT in Volume IV and responses to the Performance Questionnaire are only two means used by the PPT to obtain relevant past performance information. The Government reserves the right to obtain information from other sources (e.g., Contractor Performance Assessment Review System (CPARS), Award Fee Evaluations, etc.) to assess offeror's past performance. Problems not mentioned by the offeror, but found by the PPT during the course of assessing relevant past performance, may be addressed by the PPT. Offerors will be provided an opportunity to address any negative or adverse past performance information received by the Government during this evaluation, subject to the restrictions of FAR 15.306(a)(2), which they have not had an opportunity to address in the past.

7.0 Volume V - Contract Documentation

7.1 Solicitation/Representations and Certifications
The purpose of this volume is to provide information to the Government for preparing the contract document and supporting file. The offeror's proposal shall include a signed copy of the Solicitation, and completed Sections A through K. This includes:

7.1.1 Section A - Solicitation/Contract Form
Completion of blocks 12.,14. (If applicable), 15A., 15B., 15C., (if applicable), 16., and signature and date for blocks 17., and 18., of the Standard Form 33. Signature by offeror constitutes an offer, which the Government may accept. The "original" copy should be clearly marked under separate cover. Completion of the form indicates that the offeror has read and agrees to the terms and conditions contained in the Solicitation Section A - K.

7.1.2 Section G - Contract Administrative Data
Insert your taxpayer Identification Number in clause G015.

7.1.3 Section I - Contract Clauses

Complete the offeror supplied fill-in information, as applicable.

7.1.4 Section K - Representations, Certifications, and other Statements of Offerors
Complete the representations, certifications, acknowledgments and statements as applicable.

7.2 Exceptions to Terms and Conditions
Exceptions taken to terms and conditions of the solicitation, to any of its formal attachments, or to other parts of the solicitation shall be identified. Each exception shall be specifically related to each paragraph and/or specific part of the solicitation to which the exception is taken. Provide rationale in support of the exception and fully explain its impact, if any, on the performance, schedule, cost, and specific requirements of the solicitation. This information shall be provided in the format and content of Table 7.2 below. Failure to comply with the terms and conditions of the solicitation may result in the offeror being removed from consideration for award.

Table 7.2 - Solicitation Exceptions

Solicitation Document	Paragraph/Page	Requirement/Portion	Rationale
TRD, Solicitation, ITO, etc.	Applicable page and paragraph numbers	Identify the requirement or portion to which exception is taken	Justify why the requirement will not be met

7.3 Other Information Required

7.3.1 Authorized Personnel
Provide the name, title and telephone number of the company/division point of contact regarding decisions made with respect to your proposal and who can obligate your company contractually. Also, identify those individuals authorized to negotiate with the Government as well as the name, position, and contact information for the person to be notified of the award decision by the Source Selection Authority or designated representative.

7.3.2 Government Offices
Provide the mailing address, telephone and fax numbers and facility codes for the cognizant Contract Administration Office, DCAA, and Government Paying Office. Also, provide the name and telephone and fax number for the Administrative Contracting Officer (ACO).

7.3.3 Company/Division Address, Identifying Codes, and Applicable Designations
Provide company/division's street address, county and facility code; CAGE code; DUNS code; size of business (large or small); and labor surplus area designation. This same information must be provided if the work for this contract will be performed at any other location(s). List all locations where work is to be performed and indicate whether such facility is a division, affiliate, or subcontractor, and the percentage of work to be performed at each location.

L011 APPLICABLE CLAUSES (MAY 2002) (TAILORED)

The appropriate clauses to be included in the contract will be determined based on Offeror's response to the Section K representations.

(a) Patent Rights. If the Offeror is a small business firm or nonprofit organization, then FAR 52.227-11, PATENT RIGHTS-RETENTION BY THE CONTRACTOR (SHORT FORM), DFARS 252.227-7034, PATENTS - SUBCONTRACTS, and DFARS 252.227-7039, PATENTS - REPORTING OF SUBJECT INVENTIONS will be used in Section I. Otherwise, FAR 52.227-12, PATENT RIGHTS - RETENTION BY THE CONTRACTOR (LONG FORM), will be included in Section I consistent with FAR Part 27.

(b) Cost Accounting Standards. Section I of this solicitation may contain the three Cost Accounting Standards clauses at FAR 52.230-3, 52.230-4, 52.230-5, and/or 52.230-6. The resultant contract will contain only

those clauses required based on the Offeror's response to the Section K certification titled Cost Accounting Standards Notices and Certification (National Defense).

(c) Subcontracting Plan. If the offeror has a comprehensive subcontracting plan under the test program described in 219.702(a), DFARS 252.219-7004, SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (TEST PROGRAM) H081 will be used in lieu of FAR 52.219-9, FAR 52.219-10, FAR 52.219-16, and DFARS 252.219-7003.

L029 DETERMINATION OF COMPETITIVE RANGE (FEB 1997) (TAILORED)

a. Pursuant to FAR 15.306, the Contracting Officer's determination of competitive range of proposals submitted as a result of this solicitation will consider such criteria as technical evaluation/ranking of the proposal, initial cost/ price proposed, and other items set forth in Section M of this solicitation. See the Section M paragraph entitled "Evaluation Criteria," for a definitive listing of these criteria and their relative importance.

b. Offerors are hereby advised that only those proposals determined to have a reasonable chance for award of a contract will be included in the competitive range. While every effort will be made to maintain strong competition, the Contracting Officer will also look to eliminate time consuming and unnecessary discussions with those offerors whose proposals have no reasonable chance for award. This procedure is considered beneficial to both the Air Force and the offerors involved since, in addition to saving further expenditure of resources, acquisition lead time should be reduced.

c. Accordingly, offerors should submit initial proposals on their most favorable terms, from both a technical and cost/price standpoint. Again, it should be noted that proposals will not be included in the competitive range solely on the basis of technical acceptability, nor will they be included due to cost/price considerations alone.

d. Offerors whose proposals are not included in the competitive range will be notified as soon as practicable. Additional information relative to such proposals will be provided through debriefing of unsuccessful offerors.

L045 ACCESS TO AIR FORCE COMPUTER SYSTEMS (MAR 1999)

If performance under this contract will require access to Air Force computer systems (stand alone or networked), compliance with Air Force Instruction (AFI) 33-119 and Air Force Systems Security Instruction (AFSSI) 5027 is mandatory. It should be noted that such access requires, at a minimum, a National Agency Check or Entrance National Agency Check in accordance with DoD 5200.2-R, Personal Security Program. Offerors should make themselves familiar with local procedures for processing such requirements, and be prepared to be in compliance on the first day of contract performance. Failure to comply with this requirement may be considered a failure to perform.

L046 SUBMISSION OF COST OR PRICING DATA (FEB 2003) (TAILORED)

(a) It is anticipated that pricing of this action will be based on adequate price competition; therefore, offerors are not required to submit cost or pricing data. However, if after receipt of proposals it is determined that adequate price competition does not exist, cost or pricing data (see FAR 15.406-2, Certificate of Current Cost or Pricing Data) shall be required.

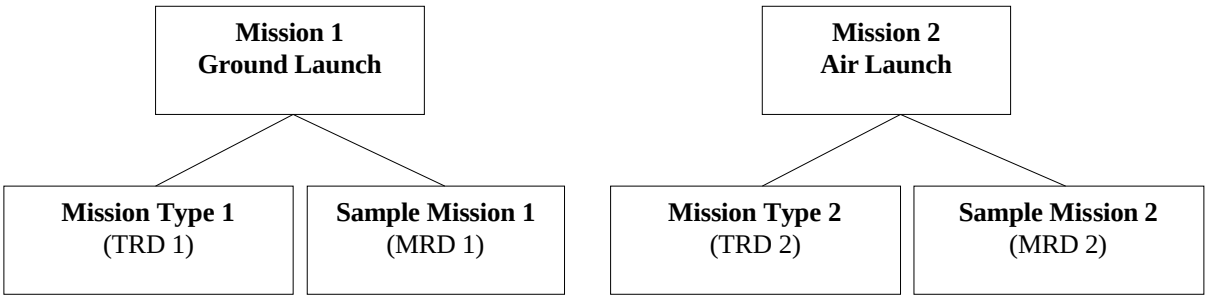
(b) If it is determined that adequate price competition does not exist, the offeror shall provide current, complete and accurate cost or pricing data within fourteen calendar days after receipt of the Contracting Officer's request.

NOTICE: The following solicitation provisions pertinent to this section are hereby incorporated in full text:

OTHER SOLICITATION PROVISIONS IN FULL TEXT

DET 12-M002 SOURCE SELECTION (JUN 2004)

SECTION M
M001 EVALUATION PROCEDURES
M 1.a. Basis for Contract Award
The RSS requirement consists of trwo Mission Types: Mission Type 1, ground launch, and Mission Type 2, Air Launch. Each Mission Type has an overarching Technical Requirements Document (TRD), and a representative sample mission defined by a MIssion Requirements Document (MRD). In this source selection, Mission Capability, Risk, and Past Performance will be evaluated against the Mission Type TRD(s). Cost/Price will be evaluated against the Mission Type MRD(s). See illustration below:



The Government will conduct a best value source selection to evaluate proposals in accordance with Federal Acquisition Regulation (FAR) Part 15 and agency procedures, as directed in Air Force Federal Acquisition Regulation Supplement (AFFARS) Subpart 5315.3, and as supplemented, modified herein, and current as of the date of release of this RFP. This solicitation is for multiple award Indefinite Delivery Indefinite Quantity contracts with provisions for Fixed Price Incentive Firm delivery orders. The Source Selection Authority (SSA) will make contract award(s) to the offeror(s) whose proposal, based upon an integrated assessment of Mission Capability, Proposal Risk, Past Performance, and Price, best meets the solicitation requirements and FAR responsibility requirements, and is otherwise eligible for award. The Government seeks to award to the offeror(s) who gives the Air Force the greatest confidence that it will best meet or exceed the requirements affordably. This may result in a contract award to an offeror who has submitted a higher rated, higher priced proposal if the SSA reasonably determines, considering the Government's estimate of probable cost, technical superiority, overall business approach of the offeror's proposal, and/or superior past performance, that the superior mission capability, proposal risk, and/or past performance of the higher priced offer outweighs the cost difference. The Government reserves the right not to award any contract. The evaluation of mission capability and proposal risk will be based on the information contained in the offeror's Mission Capability (TRD) proposal volumes; the evaluation of cost factors will be based on the offerors cost/price (MRD) proposal volumes. These factors will be used to evaluate how well the offeror understood and addressed the objectives and requirements of the RFP, as defined in the SOO and TRD. The evaluation of the offeror's past performance will be based on the information contained in the offeror's past performance volume, CPARs, questionnaires, and other sources, as appropriate. Cost and price will be a significant part of the SSA's integrated assessment and award decision. Offerors should perform technical and cost trade offs to achieve a balanced proposal that reflects the cost effective pursuit necessary to accomplish a spacelift mission. The basis of cost must be compatible with all other elements of the proposal. The price proposal will be evaluated for reasonableness. To arrive at a source selection decision, the SSA will integrate the source selection team's evaluations of the evaluation factors and subfactors (described below). While the Government source selection evaluation team and the SSA will strive for maximum objectivity, the source selection process, by its nature, is subjective and, therefore, professional judgment is implicit throughout the entire process. The Government intends to award contracts without conducting discussions with the offerors. Therefore, each offeror's initial proposal

should contain the offeror's best terms from both price and technical standpoints. The Government reserves the right to conduct discussions if the Contracting Officer (CO) determines they are necessary.

M 1.b. Number of Contracts to be Awarded
The Government intends to award multiple contracts for this effort. The Government intends to award at least one effort to a small business. Although the evaluation is based on the two sample missions, the Government will award to a contractor with the ability to meet only one sample mission, (e.g. air launch only). The Government reserves the right to award one or more task orders for ground or air launch based on offeror proposals to this solicitation.

M 1.c. Rejection of Unrealistic Offers
The Government may reject any proposal that is evaluated to be unrealistic in terms of program commitments, including contract terms and conditions, or unrealistically high or low in price when compared to Government estimates, such that the proposal is deemed to reflect an inherent lack of competence or failure to comprehend the complexity and risks of the program.

M 1.d. Correction Potential of Proposals
The Government will consider, throughout the evaluation, the "correction potential" of any deficiency or proposal inadequacy. The judgment of such "correction potential" is within the sole discretion of the Government. If an aspect of an offeror's proposal not meeting the Government's requirements is not considered correctable, the offeror may be eliminated from the competitive range.

M002 EVALUATION FACTORS
M 2.a. Evaluation Factors and Subfactors and their Relative Order of Importance
Award will be made to the offeror(s) proposing the combination most advantageous to the Government based upon an integrated assessment of the evaluation factors and subfactors described below. Within factor 1, there are four subfactors, which will be evaluated and rated separately.
Factor 1: Mission Capability (TRD)
- Subfactor 1: Vehicle Performance
- Subfactor 2: Design Maturity
- Subfactor 3: Operations and Range Integration
- Subfactor 4: Payload Accommodation
Factor 2: Proposal Risk (TRD)
Factor 3: Past Performance (TRD)
Factor 4: Price (MRD)
For Mission 1 - All four factors are of equal importance
For Mission 2 - Factor 4 is of lesser importance to factor 1,2, &3 , which are of equal importance.
The subfactors under factor 1 are of equal importance. In accordance with FAR 15.304(e), factors 1,2, and 3, when combined, are significantly more important than factor 1. However, price will be a significant consideration in the selection decision. The price evaluation will serve two purposes: 1. to determine price realism and reasonablness. 2. to make task order award.

M 2.b. Factor and Subfactor Rating
A color rating will be assigned to each subfactor under the Mission Capability factor. The color rating depicts how well the offeror's proposal meets the Mission Capability subfactor requirements in accordance with the stated explanation, within the subfactor, of how the subfactor will be evaluated. The Mission Capability subfactors are described in section M 2.c.1 below. A proposal risk rating will be assigned to each of the Mission Capability subfactors as described in paragraph M 2.c.2. The proposal risk rating represents an assessment of the risks identified with an offeror's proposed approach as it relates to the Mission Capability subfactor. Past Performance will be evaluated as described in paragraph M 2.c.3. The evaluation will focus on the past performance most relevant to the Mission Capability subfactors. A confidence assessment rating will be assigned based on the past performance evaluation.
Price will be evaluated for reasonableness as described in paragraph M 2.c.4 below. When the integrated assessment of all aspects of the evaluation is accomplished, the color ratings, proposal risk ratings, performance confidence assessment, and evaluated price will be considered in the order of priority listed in paragraph M.2.a above. Any of these considerations can influence the SSA's decision.

M 2.c Evaluation Criteria

M 2.c.1 Mission Capability Factor
The objective of this factor is to assess the offeror's ability to satisfy the SOO and TRDs through a comprehensive and sound program approach.
Identified below are the minimum requirements. Proposals that exceed the minimum requirements in a way that is beneficial to the government will be more highly rated.

M 2.c.1.1 Subfactor 1: Vehicle Performance
The vehicle performance criteria are met when:

M 2.c.1.1.1 Throw Weight to Orbit
a. Mission Type 1 (TRD): The offeror can meet the following 3-sigma requirements:
1. Inclination: Sun synchronous
2. Altitude: 400 x 400 nmi, higher rating will be given for higher altitude orbits
3. Throw-weight: Threshold is 500 lbs, higher rating will be given for throw weights in excess of 500 lbs
b. Mission Type 2 (TRD): The offeror can meet the following 3 sigma requirements:
1. Inclination: Sun synchronous
2. Altitude: Threshold is 150 x 150 nmi, higher rating will be given for higher altitude orbits
3. Throw-weight: Threshold is 200 lbs, higher rating will be given for throw weights in excess of 200 lbs
4. Air-launched, higher rating will be given for quick reaction enhancements that allow for launches within 72 hours of call up.

M 2.c.1.1.2 Insertion Accuracy
For both Mission Types (TRD(s), the offeror can meet the following 3-sigma maximum dispersion requirements for the payload orbit after deployment:
a. Insertion apse: ±10 nmi altitude for insertion apse, higher rating will be given for more accurate insertion apse
b. Non-Insertion apse: ±40 nmi altitude for non-insertion apse, higher rating will be given for more accurate non- insertion apse
c. Degree off Inclination: Threshold is ±0.2 deg inclination; higher rating will be given for more accurate inclination.
d. (Enhancement) Insertion and non-insertion apse: ±10 nmi altitude and a ±0.1 deg inclination.

M 2.c.1.1.3 Attitude Control
For both Mission Types(TRD(s), the offeror can meet the attitude control requirements at the time of payload deployments to ± 1 degree of the desired attitude with drift rates less than 1-deg/sec. Tip-off rates of the payload shall be limited to 5 deg/sec.

M 2.c.1.1.4 Collision/Contamination Maneuver
For both Mission Types (TRD(s), the offeror can meet the requirement for a collision avoidance maneuver to minimize payload contamination and preclude re-contact between the deployed payloads and the launch vehicle.

M 2.c.1.2 Subfactor 2: Design Maturity
The design maturity criteria are met when:

M 2.c.1.2.1 CDR Level of Design
The level of design criteria is met when the proposal adequately demonstrates the existing design level for the following items:
a. Motor/Engine Static Fire Success
b. Vehicle Loads/Environments Analysis Complete
c. Components Identified (With Pedigrees)
d. Basic Electrical Block Diagrams Complete
e. Bending Modes/Thermal Analysis Complete
f. Software Architecture Developed and Tested
g. Guidance Algorithms Developed and Tested

h. Ground Support Equipment Design and Concept Complete
i. Concept of Operations Developed
j. FTS and TM System Designs Complete
k. Spacelift Vehicle Integration: Threshold "paper integrated design" with an objective of an integrated spacelift vehicle through successful launch

M 2.c.1.2.2 Telemetry and Instrumentation
For both Mission Types (TRD(s) the offeror can meet the following telemetry criteria:
a. Provides the required data for range flight safety requirements, vehicle health and status information, and identifies plan for providing transmitter and antenna characteristics identified in the TRD(s).
b. The Launch System provides a bit rate of at least 750 Kbits/sec with 16 Kbps for payload use with flexibility to support a variety of channel/bit rate requirements.
Higher rating will be given for increased data rate available to the Satellite Customers without sacrificing spacelift vehicle data requirements.
c. The telemetry provides signal conditioning, PCM formatting (programmable), and has up to 24 channels available.
d. (Enhancement) Identify how the overall 2 Mbit/sec data rate can be achieved.

M 2.c.1.2.3 EMI/EMC
For both Mission Types (TRD(s) the offeror can meet the following EMI/EMC criteria:
a. Offeror can identify anticipated radiated and conducted emissions that could affect the payload, TM and FTS systems.
b. The offeror can identify the capability to launch the proposed launch vehicle(s) at any of the established government or commercial ranges without adverse effects from their electromagnetic environments or from EMI either radiated or conducted from the payload.

M 2.c.1.2.4 Launch Availability
a. For Mission Type 1 (TRD), the offeror can demonstrate a 12-month Period of Performance (PoP) from task order award. Higher rating will be given for a reduced PoP without requiring additional government resources.
b. For Mission Type 2 (TRD), the offeror can demonstrate an 18-month PoP. Higher rating will be given for a reduced PoP without requiring additional government resources.
c. (Enhancement) Mission Type 1 (TRD): The offeror identifies if an accelerated 6-month PoP can be achieved and what additional resources are required.
d. (Enhancement) Mission Type 2 (TRD): The offeror identifies if an accelerated 12-month PoP can be achieved and what additional resources are required.

M 2.c.1.2.5 Mission Reliability
For both Mission Types (TRD(s) the offeror shall meet a mission reliability of at least 98%. Mission reliability will include the design reliability of the proposed launch vehicles hardware and software.

M 2.c.1.2.6 Quality Assurance
For both Mission Types (TRD(s) the offeror can adequately provide a quality assurance plan that identifies the spacelift vehicle(s) verification process to include the development test, qualification test, system integration test, flight proof test and integration testing and how verified (i.e. analysis, similarity, inspection, demonstration, and/or test).

M 2.c.1.2.7 Interface Control Documents
For both Mission Types (TRD(s) the offeror can adequately identify the process of developing an ICD with the range and payload provider. The ICD process identifies the mechanical, electrical, and telemetry interfaces and how the User's Guide defined interfaces can be achieved.

M 2.c.1.2.8 Organization
a. The offeror adequately addresses the planned organization, lines of authority, responsibilities, facilities and staffing approach.
b. The offeror adequately details the ability to provide management support for the spacelift mission as well as the ability to maintain critical skills during slack periods.

c. The offeror adequately demonstrates how the proposed organization is responsive to the TRD requirements and would provide the Government timely information and insight into RSS capability and support status to ensure effective integration of the launch team with the site.
d. The offeror identifies key positions, demonstrates adequate expertise in those positions, and a plan to retain key personnel.
e. The offeror identifies an IMP, IMS, CWBS that are sufficient to adequately execute the proposed program and consistent with all other aspects of the proposal.
f. The offeror identifies a satisfactory approach to managing subcontracts and inter-divisional transfers, parts suppliers, and sustainment.

M 2.c.1.2.9 Integrated Management Plan (IMP)
a. The offeror identifies that the IMP adequately details the design, build, test, integration and launch activities required to accomplish the sample mission(s).
b. The offeror identifies any schedule, technical, and cost risks and describes a method for mitigation.
c. The offeror identifies that the IMP adequately describes the core activities and processes necessary to implement the tasking in the TRD while satisfying the TRD.
d. The offeror identifies that the IMP adequately details associate and/or major subcontractor activities.
e. The offeror identifies that the IMP provides a planned approach for providing Government teams adequate insight through design reviews, program reviews, readiness reviews, post-flight reviews, technical interchange meetings, data submittals and teleconferencing.
f. The offeror identifies how the IMP addresses how discrepancies are documented, tracked and closed.
g. The offeror demonstrates an understanding of military Range Safety requirements or other government approved safety documentation necessary for launch approval.

M 2.c.1.2.10 Integrated Master Schedule (IMS)
a. The offeror provides a realistic baseline IMS that includes all major tasks, events, and significant accomplishments and their corresponding dates for the Sample Missions (MRD(s).
b. The offeror identifies that the IMS includes traceability of key tasks to those events and significant accomplishments submitted in the IMP, as well as the relationships and dependencies between the tasks.
c. The offeror identifies that the IMS includes sufficient detail to provide visibility on at least a month-to-month basis through initial launch capability.

M 2.c.1.2.11 Small Business Subcontracting
If the offeror is other than a small business, the offeror's Small Business Subcontracting Plan must be submitted in accordance with FAR 52.219-9 and DoD goals (5% SDB, 5% Women Owned Small Business, 3% Hub Zone, and 3% Small Disadvantaged Veteran Owned Small Business). The Subcontracting Plan must clearly detail the extent to which the offeror commits to the participation of SB, SDB, Women Owned Small Business, HBCU, Veteran Owned Small Business, and MI whether as joint venture members, teaming arrangement, or subcontractors. Failure to submit such a plan will render the offeror (other than small business) ineligible for award.

M 2.c.1.3 Subfactor 3: Operations & Range Integration
Operations and range integration will be evaluated. The criteria are met when:

M 2.c.1.3.1 Airborne Range Safety Requirements
For both Mission Types (TRD(s), the offeror provides a design that is RCC 319-99 compliant and includes:
a. Design for command destruct system from the receiver to the destruct system.
b. Test plan for the Flight Safety System (FTS) hardware
c. C-band Transponder and/or GPS tracking systems that identifies the spacelift vehicle position during powered flight.

M 2.c.1.3.2 Logistics
a. The offeror adequately provides a plan for transportation and handling of launch vehicle and support equipment hardware.
b. The offeror adequately provides a plan for providing inventory control and sustainment.

M 2.c.1.3.3 Safety

For both Mission Types (TRD(s), the offeror provides an OSHA compliant ground safety process for factory processing and testing, and an ER/WR 127-1 compliant field operations safety plan.

M 2.c.1.3.4 Aircraft Integration (Mission Type 2 (TRD) only)
The offeror adequately identifies the airlift requirement and demonstrates:
a. (For Government provided aircraft) the ability to provide inputs to or develop the documents and interfaces required by the government to integrate proposed spacelift vehicle(s).
b. The ability to match the mission performance characteristics of the aircraft with the spacelift vehicle.
c. The ability to integrate the spacelift vehicle and support equipment onto launch aircraft.

M 2.c.1.3.5 Universal Documentation System (UDS)
The offeror adequately demonstrates familiarity with the UDS and can provide inputs to or develop the UDS documents to interface with a government range.

M 2.c.1.4 Subfactor 4: Payload Accommodation
The offeror identifies the ability to accommodate payload. The criteria are met when:

M 2.c.1.4.1 Mechanical Interface
a. Mission Type 1 (TRD): The offeror demonstrates the ability to house a 40-inch diameter and 60-inch long payload into the fairing. Higher rating will be given for a larger payload volume available in the faring.
b. Mission Type 2 (TRD): The offeror demonstrates the ability to house a 36-inch diameter and 40-inch long payload into the fairing. Higher rating will be given for a larger payload volume available in the faring.
c. The offeror demonstrates the ability to access the payload after being encapsulated into the fairing with an access door of at least 100 sq. inches.
d. The offeror demonstrates the non-separation structural interface for mounting the payload assembly. Higher rating will be given when the offeror demonstrates a Launch System that includes a payload separation system that imparts a separation velocity of 3 ft/sec to the primary payload with tip-off rates less than 5 degrees per second.
e. The offeror demonstrates the capability to handle a complete payload weight of 1500 lbs with a CG of up to 30" forward of the interface and a lateral offset of up to 1". Higher rating will be given if the offeror demonstrates an increased capability.
f. (Enhancement) The offeror identifies the ability to provide a second assess panel. Higher rating will be given for maximum flexibility as to the location of the assess panel.

M 2.c.1.4.2 Electrical Interface (both Mission Types (TRD(s)
a. The offeror demonstrates the following capabilities, based on a 1.5 ohm payload load:
1. Circuit Quantity: 16 circuits, higher rating will be given for additional circuits
2. Minimum current: 5 amps
3. Timing accuracy: 10 millisec
4. Minimum Duration: 35 millisec
5. Simultaneity: Up to 8 discretes with a tolerance of 1 millisec
6. The offeror shall demonstrate the capability for the circuits to provide 28 volts ± 4 volts to a high impedance load.

b. The offeror demonstrates the capability to provide 16 kbps of telemetry data from the payload with the flexibility to support a variety of channel/bit rate requirements and provide signal conditioning, PCM formatting (programmable), and data transmission with up to 24 channels shall be provided. Higher rating will be given for demonstrating additional telemetry throughput.

c. The offerors demonstrates the capability to provide 24 umbilical circuits to the payload until launch with ground power conditioned to 28±4 Vdc and current limited to 5 amperes. Higher rating will be given for demonstrating additional capability.

M 2.c.1.4.3 Environments (both Mission Types (TRD(s)
a. The offeror provides the predicted (or actual) launch environments for acoustic, shock, vibration, transient loads and steady state acceleration.

b. The offeror demonstrates a thermal environment for the payload that meets the TRD requirement (does not exceed 200 degrees F at the internal wall during launch with the temperature maintained at between 60 and 120 degree F during ground processing).
c. The offeror demonstrates the capability to maintain the payload in a Class 100,000 environment at all times with no condensation forming on payload surfaces with provisions to facilitate the implementation of a continuous clean dry nitrogen purge.
d. (Enhancement) The offeror shall identify the capability to meet the conditioned air enhancement for temperature, humidity and clean air while on the launch pad.
e. (Enhancement) The offeror shall identify the capability to meet the nitrogen purge enhancement while on the launch pad.
f. (Enhancement) The offeror shall identify the capability to meet the launch pad environmental control enhancement for environmental protections of the launch booster and for access platforms while on the launch pad.
g. (Enhancement) The offeror shall identify a capability to add the four enhanced contamination control identified below:
1) Use of out gassing materials, particularly on the payload fairing internal surfaces and other surfaces within the fairing shall comply with the following requirement: total mass loss (TML) of less than 1.0 percent and a collected volatile condensable mass (CVCM) of less than 0.1 percent when tested in accordance with ASTM E595. Materials that do not meet this requirement may be used if it can be shown that the effects on the payload are not significant compared to the total environment when using materials that meet the standard.
2) Integration and testing shall be conducted in a Class 10,000 clean room or better environment, as defined in Federal Standard 209, in which the air shall have a maximum hydrocarbon content of 15 ppm or less. Humidity shall be maintained between 35 to 60 percent.
3) After fairing installation, air supplied to the fairing volume shall have the quality equivalent to air filtered with a HEPA filter and shall have a maximum hydrocarbon content of 15 ppm. Humidity shall be maintained between 35 to 60 percent.
4) Launch Vehicle surfaces interfacing with the payload envelope shall be cleaned to Visibly Clean Plus Ultraviolet cleanliness criteria defined as visibly clean when inspected:
- With normal vision 6-18 inches from the surface with 100 foot candle illuminance on the surface.
- With the surface illuminated by a black light (3200-3800 angstroms)

M 2.c.2 Proposal Risk Factor
Proposal Risk will be evaluated at the Mission Capability subfactor level. The Proposal Risk assessment focuses on the risks and weaknesses associated with an offeror's proposed approach and includes an assessment of the potential for disruption of schedule, increased price, degradation of performance, and the need for increased Government oversight, as well as the likelihood of unsuccessful contract performance. For each identified risk, the assessment also addresses the offeror's proposal for mitigating the risk and why that approach is or is not manageable. Each Mission Capability subfactor will receive one of the Proposal Risk ratings defined at AFFARS 5315.305(a)(3)(ii).

M 2.c.3 Past Performance
Under the Past Performance Factor, the Performance Confidence Assessment represents the evaluation of an offeror's past work record to assess the Government's confidence in the offeror's probability of successfully performing this effort as proposed. The Government will evaluate the offeror's demonstrated record of contract compliance in supplying products and services that meet user's needs, including cost and schedule. Only work occurring within the five years prior to the RFP release date will be considered relevant. The Past Performance Evaluation will focus on performance that is relevant to the Mission Capability subfactors. In determining relevance, consideration will be given to launch vehicles that have similar avionics, flight software, and motors/engines to the spacelift vehicles configurations proposed; have achieved the desired orbits, contract type, and schedule.
Relevant past performance information will be attained through CPARS; award fee board evaluations; questionnaires tailored to the circumstances of this acquisition; Defense Contract Management Agency (DCMA) channels; and interviews with program managers and contracting officers, or other sources known to the Government, including commercial sources. In conducting the performance confidence assessment, the government reserves the right to use both data provided by the offeror and data obtained from other sources. This information may include data on efforts performed by other divisions, critical subcontractors, or teaming contractors, if such resources will be brought to bear or significantly influence the performance of the proposed effort. The Government may consider as relevant, efforts performed for agencies of the federal, state, or local governments and commercial customers.

Negative past performance is defined as any past performance rating of marginal or lower, or any negative comments on offeror's performance received by the PPT.
As a result of an analysis of the favorable and unfavorable information (strengths and risks) identified, a past performance confidence assessment will be done at the subfactor level and integrated into an overall past performance factor level confidence assessment recommendation. Each Offeror will receive one of the following past performance factor ratings: High Confidence, Significant Confidence, Confidence, Unknown Confidence, Little Confidence or No Confidence. These ratings are defined in AFFARS 5315.305(a)(2). Offerors should note that though the assessment will be conducted at the subfactor level, significant achievement or problem in any element of work could become an important consideration in the overall evaluation process. In addition to evaluating the extent to which the offeror's performance meets mission requirements, the assessment will consider things such as the offeror's history of forecasting and controlling costs, adhering to schedules (including the administrative aspects of performance), reasonable and cooperative behavior and commitment to customer satisfaction, and generally, the contractor's business-like concern for the interest of the customer. Pursuant to DFARS 215.305(a)(2), the assessment will consider the extent to which the offeror's evaluated past performance demonstrates compliance with FAR 52.219-8, Utilization of Small, Small Disadvantaged, and Women-Owned Small Business Concerns and FAR 52.219-9, Small, Small Disadvantaged, and Women-Owned Small Business Subcontracting Plan. Where the relevant performance record indicates performance problems, the Government will consider the number and severity of the problems and the appropriateness and effectiveness of any corrective actions taken (not just planned or promised). The Government may review more recent contracts or performance evaluations to ensure corrective actions have been implemented and to evaluate their effectiveness. Offerors will be provided an opportunity to address any negative or adverse past performance information received by the Government during this evaluation, subject to the restrictions of FAR 15.306(a)(2), which they have not had an opportunity to address in the past. Offerors without a record of relevant past performance or for whom information on past performance is not available will not be evaluated favorably or unfavorably on past performance and, as a result, will receive a "Unknown Confidence" rating for the Past Performance factor. For offerors with no relevant performance record the Government may consider relevant performance information regarding key personnel.

M 2.c.3.1 Relevancy Evaluation Criteria
The following tables outline the criteria to be used for evaluating contract relevance.

Subfactor 1: Vehicle Performance

Relevancy Rating	**1.1.1.1 Very Relevant = 5**	**Relevant = 3**	**Somewhat Relevant = 1**	**Not Relevant = 0**
	Provided an actively guided, multi-stage launch that delivered a payload to an orbit with any insertion accuracy.	Provided an actively guided, multi-stage launch that resulted in any trajectory that exceeded 100 nm in altitude.	Provided an actively guided launch that resulted in any trajectory that exceeded 100 nm in altitude.	No launches supported to date.

Subfactor 2: Design Maturity

Relevancy Rating	**Very Relevant = 5**	**Relevant = 3**	**Somewhat Relevant = 1**	**Not Relevant = 0**

	Developed an actively guided, multi-stage launch vehicle that resulted in any orbit with any insertion accuracy.	Developed an actively guided, multi-stage launch vehicle that resulted in any trajectory that exceeded 100 nm in altitude.	Developed a activity guided launch vehicle that resulted in any trajectory that exceeded 100 nm in altitude.	No launches supported to date.

Subfactor 3: Operations and Range Integration

Relevancy Rating	**Very Relevant = 5**	**Relevant = 3**	**Somewhat Relevant = 1**	**Not Relevant = 0**
	Provided a launch from a government or commercial range that launched an actively guided, multi-stage launch vehicle that delivered a payload into any orbit with any insertion accuracy. The vehicle had a flight safety system controlled by the range.	Provided a launch from a government or commercial range that had an actively guided, multi-stage launch vehicle that resulted in any trajectory that exceeded 100 nm in altitude. The vehicle had a flight safety system controlled by the range.	Provided a launch from a government or commercial range that involved an actively guided launch vehicle that resulted in any trajectory that exceeded 100 nm in altitude. The vehicle had a flight safety system controlled by the range.	No flight test operations.

Subfactor 4: Payload Accommodations

Relevancy Rating	**Very Relevant = 5**	**Relevant = 3**	**Somewhat Relevant = 1**	**Not Relevant = 0**
	Integrated a payload/satellite onto a launch vehicle that resulted in any orbit with any insertion accuracy. The payload required power, signals and telemetry pass through from the spacelift vehicle.	Integrated a payload onto a launch vehicle that that resulted in any trajectory that exceeded 100 nm in altitude. The payload required power, signals and telemetry pass through from the spacelift vehicle.	Integrated a payload onto any launch vehicle with an altitude exceeding 100 mi. The payload required at least one of the following: power, signals and telemetry pass through from the spacelift vehicle.	No flight test operations.

M 2.c.3.2 Past Performance Assessment Process

a) Obtain Past Performance Information on Each Offeror.
The Past Performance Team (PPT) obtains from the Offeror's Past Performance Volume, responses to questionnaires, CPARs, Award Fee evaluations, and DCMA historical data on the bidding/performing business units, and information from other external sources (business/internet). Also, the PPT conducts interviews.

b) Assess Contract Relevancy for Each Subfactor
The PPT will evaluate all contracts submitted by the Offerors in their Volume IV for relevancy at the Mission Capability subfactor level. Each contract subfactor will be evaluated against the Relevancy Criteria developed by the PPT and provided to the Offerors. The methodology used will be centered on a numeric rating scale. For each of the subfactors, all contracts will be reviewed and given one of the numeric relevancy ratings: i.e., 5 (Very Relevant); 3 (Relevant); 1 (Somewhat Relevant) and 0 (Not Relevant). The numeric ratings will help the PPT focus on the most relevant contracts per subfactor.

c) Assess Contract Performance for Each Subfactor
The PPT will then assess the data obtained (proposal volume, questionnaire answers, CPARs, etc.) and assign past performance ratings by subfactor by contract. For each of the subfactors all contracts will be reviewed and given one of six performance ratings: Blue (Exceptional); Purple (Very Good), Green (Satisfactory); Yellow (Marginal); Red (Unsatisfactory) and N/A (Not Applicable).

d) Assign Confidence Ratings to Each of the Mission Capability Subfactor Areas
The PPT will use the relevancy ratings in conjunction with the performance ratings to determine confidence ratings for each contract evaluated. Contracts with "5" relevancy ratings (Very Relevant) will be the focus of the PPT's performance confidence assessment at the Mission Capability subfactor level. Contracts with "3" relevancy ratings (Relevant) will be considered but will carry less weight. Contracts with a "1" relevancy rating (Somewhat Relevant) will be considered but will carry the least weight. Given the past performance on relevant contracts identified, the PPT will assess each Offeror's performance confidence by Mission Capability subfactor and assign confidence ratings of High Confidence, Significant Confidence, Confidence, Unknown Confidence, Little Confidence or No Confidence.

e) Recommended Past Performance Factor Confidence Rating
The PPT will assess each Offeror's Mission Capability subfactor performance confidence ratings and recommend an overall Offeror "Confidence" rating for the past performance factor. The overall past performance ratings possible are High Confidence, Significant Confidence, Confidence, Unknown Confidence, Little Confidence or No Confidence.

M 2.c.4 Cost or Price Factor
The evaluation of contract price will include an assessment of reasonableness as defined below:
The Government will evaluate the reasonableness of each offeror's proposed sample mission(s) (MRD(s) price. Reasonableness of an offeror's proposal will be evaluated using one or more price analysis techniques in FAR Subpart 15.404-1(b). If the CO determines that adequate price competition has not been obtained, reasonableness will be evaluated using cost analysis techniques described in FAR Subpart 15.404-1(c).

M.2.d Discussions
The Government anticipates award without discussions. However, if, during the evaluation period it is determined to be in the best interest of the Government to hold discussions, offeror responses to Evaluation Notices (ENs), and the Final Proposal Revision (FPR) will be considered in making the source selection decision.
If discussions are necessary, the Government intends to provide a competitive range status briefing and a rating status briefing on the Government's evaluation of the offeror's proposal before requesting Final Proposal Revisions (FPRs). The Government shall provide color assessment and/or adjectival rating status for each factor or sub-factor, as appropriate. These briefings are intended to assist the offerors in making any revisions they may consider necessary to meet the solicitation requirements, and to enhance materially the proposal's potential for award. Offerors are advised that the Government's final proposal evaluation rating may change from an interim evaluation as a result of the offeror's response to the Government's request for FPRs. Information submitted after the due date for or submitted separately from the final proposal revision will not be evaluated.

M.2.e Solicitation Requirements, Terms and Conditions

Offerors are required to meet all solicitation requirements, such as terms and conditions, representations, and certification, and technical requirements, in addition to those identified as factors, subfactors to be eligible for award. Failure to comply with the terms and conditions of the solicitation may result in the offeror being removed from consideration for award. Any exceptions to the solicitation's terms and conditions must be fully explained and justified.